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IN THE UNITED STATES DISTRICT COURT
           FOR THE DISTRICT OF DELAWARE
ART+COM INNOVATIONAL POOL, ) Trial Volume 2
GmbH,
          Plaintiff,
                           ) C.A. No. 14-217-RGA
V.
GOOGLE INCORPORATED,
           Defendant.
              Monday, May 23, 2016
              8:35 a.m.
              Courtroom 6A
              844 King Street
              Wilmington, Delaware
BEFORE: THE HONORABLE TIMOTHY B. DYK,
         United States District Court Judge
APPEARANCES:
         FARNAN LLP
         BY: BRIAN E. FARNAN, ESQ.
         BY: MICHAEL J. FARNAN, ESQ.
                -and-
         BAKER & BOTTS
         BY: SCOTT F. PARTRIDGE, ESQ.
         BY: MICHAEL A. HAWES, ESQ.
         BY: LARRY G. SPEARS, ESQ.
         BY: TIMOTHY ROONEY, ESQ.
                  Counsel for the Plaintiff
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APPEARANCES CONTINUED: MORRIS, NICHOLS, ARSHT & TUNNELL BY: JACK B. BLUMENFELD, ESQ. -and-O'MELVENY MYERS, LLP BY: DARIN SNYDER, ESQ. BY: LUANN L. SIMMONS, ESQ. BY: BRETT WILLIAMSON, ESQ. Counsel for the Defendants

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1
                     THE COURT: Good morning. Please
 2
       be seated. Before we bring in the jury, I'm
 3
       sure counsel has things they needed to address.
 4
                     MR. PARTRIDGE: I couldn't hear
 5
       you, Your Honor.
 6
                     THE COURT: I said before -- why
 7
       don't we try to do it. I'm sure that you have
8
       various issues to raise so why don't we start
 9
       with those before we bring the jury.
10
                     MR. SNYDER: Thank you, Your
11
              To try to take them in a little bit of
12
       order, there are three minor corrections to the
13
       preliminary jury instructions based on -- one is
14
       I believe a correction and two that are the
15
       result of intervening events. And Ms. Simmons
16
       is going to describe each of those. These are
17
       agreed.
18
                     MS. SIMMONS: Yes, Your Honor.
19
       Thank you.
                  The first one is on page eight of
20
       the version that Your Honor handed out at the
21
       pretrial conference.
22
                     THE COURT: Is that the page that
23
       begins -- how does the paragraph begin because
24
       I'm not sure my pagination is the same as yours.
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1	MS. SIMMONS: Understood. It's
2	the first paragraph under paragraph seven,
3	patents, that section. It starts, "Now, a
4	little bit about patents."
5	THE COURT: Okay.
6	MS. SIMMONS: The very last
7	sentence on that paragraph says Immersion has
8	done that here and the parties agree that should
9	be ACI has done that here.
10	THE COURT: Okay.
11	MS. SIMMONS: The next item is on
12	page 11 of the version that was handed out.
13	This is under the same section, the patent
14	section, paragraph begins ACI alleges that
15	Google has infringed certain claims.
16	THE COURT: Yes.
17	MS. SIMMONS: The second sentence.
18	Same issue in the next paragraph, the second to
19	last sentence begins.
20	THE COURT: Even if.
21	MS. SIMMONS: Correct.
22	THE COURT: And the next sentence
23	induced infringement, also.
24	MS. SIMMONS: Yes, Your Honor.

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1
       That's all of the agreed.
 2
                     MR. HAWES: Those are agreed by
 3
       ACI.
 4
                     THE COURT: Thank you.
 5
                     MS. SIMMONS: The next issue
       relates to Google's objections to ACI's opening
 6
 7
       slides. Would Your Honor like to hear that
8
       issue now?
9
                     THE COURT: Okay.
10
                     MS. SIMMONS: The first objection,
11
       Your Honor, actually if I could hand up a copy I
12
       could show you what the slides are that I'm
13
       speaking of.
14
                     THE COURT: If you can give it to
15
       her.
16
                     MS. SIMMONS: Absolutely.
17
                     THE COURT: Okay.
                     MS. SIMMONS: The first slide is
18
19
       slide eight. I'm not sure that they're numbered
20
       so if I could put it up on the screen. Google
21
       objects to the final item on this slide
22
       describing ACI's expert, Dr. Castleman, the
23
       filed expert reports for the patent office
24
       bullet. The concern there is that it's
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1 prejudicial and will confuse the jury that there 2 is some relationship between Dr. Castleman and 3 the patent office. And that's not accurate. 4 THE COURT: Let me ask ACI, what 5 was the basis for that statement? MR. HAWES: So Dr. Castleman is in 6 7 fact acting as an expert in cases for the patent 8 office is one of his experiences. What they're 9 not owning is the technology is the video 10 processing technology. It's very much part of 11 his experience, it's related to the case because it is work in the same technical area. 12 13 THE COURT: How is the patent 14 office using expert witnesses. 15 MR. HAWES: The patent office has 16 been sued in district court by Mr. Hyatt and the 17 patent office has asked Dr. Castleman to prepare 18 expert reports in a technical area that's very 19 related. It was gone over in his deposition and 20 there is no question about the relevance here. 21 THE COURT: You agree that he did 22 this work for the patent office? 23 MS. SIMMONS: Yes, Your Honor. 24 Our concern is about prejudice that it will

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1
       confuse the jury that somehow he is an affiliate
 2
       of the patent office or a spokesperson for the
 3
       patent office.
 4
                     THE COURT: Well, I think you can
 5
       clear that up on cross-examination.
 6
                     MS. SIMMONS: Okay.
 7
                     THE COURT: That objection is
8
       overruled.
 9
                     MS. SIMMONS: The next objections
10
       relate to slides 6, 15, 21, 27 and 33. These
       are all related to the same issue. They relate
11
12
       to the issue that Your Honor ruled on with
13
       respect to Google's motion in limine number one.
14
       These slides relate to issues that go to the
15
       issue of the allegation that Google and
16
       particularly Michael Jones copied information
17
       based on a demonstration that ACI gave at SGI,
18
       Michael Jones's former employer, back in 1995.
19
                     And at the pretrial conference ACI
20
       agreed that it would not argue copying, but the
21
       slides are relevant to nothing other than
22
       copying. If I can give you an example. Slide
23
       number six.
24
                     THE COURT: This just identifies
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1
       the people; right?
 2
                     MS. SIMMONS: But it shows the
 3
       people next to the SGI demonstration of ACI's
       system, and there is no relevance of Michael
 4
 5
       Jones and Mr. McClendon having seen the
 6
       demonstration at SGI other than to imply
 7
       copying. It's not relevant to any other issue
8
       in this case.
9
                     THE COURT: Well, they're going to
10
       try to make it relevant. That's overruled.
                                                      Do
11
       any of these slides that you're objecting to say
12
       anything about copying?
13
                     MS. SIMMONS: They don't have the
14
       words on the slide, no.
15
                     THE COURT: That's overruled.
16
                     MS. SIMMONS: To be clear, Your
17
       Honor, is plaintiff allowed to then imply
18
       copying when it's speaking about these slides?
19
                     THE COURT: I don't know what
20
       implied copying is. Let's see what the
21
       questions are and then we'll deal with them
22
       then.
23
                     MS. SIMMONS: Okay. I believe all
24
       the other slides that we object to in the
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1
       opening relate to the issue that what happened
 2
       at SGI with the demonstration that ACI did that
 3
       again it's our position relate to anything other
 4
       than copying, there is no other relevance.
 5
                     THE COURT: We'll see what
 6
       happens.
 7
                     MR. HAWES: Do you want me to just
8
       tell the Court what the relevance is?
 9
                     THE COURT: No, I heard that
10
       before. If you start getting close to the
11
       copying issue, we're going to sustain objections
12
       to that.
13
                     MR. SNYDER: We have some
14
       objections, Your Honor, to a few of the
15
       remaining deposition designations. So we have a
16
       few objections to deposition designations that
17
       plaintiff indicated it intends to play today for
       witnesses Michael Jones and Peter Birch.
18
19
       Ms. Simmons will describe those in more detail.
20
                     MS. SIMMONS: We actually withdrew
21
       the objections to the designations for
22
       Mr. Birch.
23
                     As to Mr. Jones, our objection is
24
       the same as what I just mentioned regarding the
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1
       opening slides, the designations go to
 2
       communications between Mr. Jones at SGI and ACI
 3
       regarding the demonstration that again it's our
 4
       position has no relevance in this case other
 5
       than copying.
 6
                     THE COURT: Okay. But I think I
 7
       have the same problem there. I can't rule on it
8
       in the abstract.
9
                     MS. SIMMONS: Understood. I think
10
       that addresses all of our objections to the
11
       designations and the exhibits, they all go to
12
       that issue.
13
                     THE COURT: Okay. Do you have the
14
       juror notebooks available?
15
                     MR. PARTRIDGE: Your Honor, we do
16
       have the juror notebooks.
17
                     THE COURT: Could I see one of
18
       them, please?
19
                     MR. PARTRIDGE: Yes, you may.
20
                     May I approach, Your Honor?
21
                     THE COURT: Yes. You're asking
22
       these jurors these questions?
                                       Okay.
23
                     MR. PARTRIDGE: Well, we could
24
       take that page out, Your Honor, that may cause
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1
       us more complications if we do that.
 2
                     THE COURT: It's ten questions
 3
       actually. Yes, I think it would be better just
 4
       to give them a blank sheet of paper headed juror
 5
       questions, make due this morning just by giving
 6
       them a blank piece of paper. Why don't you --
 7
                     MR. PARTRIDGE: We will do that,
8
       Your Honor. We will take care of that, Your
9
       Honor. The other thing I would add is that
10
       Google will be adding its witnesses pictures,
11
       those pictures I think tomorrow morning.
12
                     MR. SNYDER: Yes, Your Honor.
13
       We'll supply and we can put them in the binder.
14
       They will be collected each night, so we'll
15
       supply pages for each of the witnesses that
16
       we're going to call.
17
                     THE COURT: Okay. That's fine.
18
       Just remind me to tell the jurors that their
19
       notebooks are going to have that additional
20
       feature when we get back in the morning.
21
                     MR. SNYDER: Okay. Yes. We will.
22
       Thank you.
23
                     THE COURT: Is there anything else
24
       we need to discuss this morning?
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1 MR. SNYDER: Yes, a couple of 2 things, Your Honor. We do have objections to a 3 few of the exhibits that Plaintiffs plan to use 4 this morning. The first of those is Plaintiff's Exhibit 267, which is a video, a video that I 5 believe came off of -- that was found on the 6 7 internet of the Plaintiff's T-vision system and 8 we've objected on grounds of relevance and lack 9 of foundation and authenticity. We have no idea 10 where the video came from other than it was on 11 the internet. We don't know when it was created 12 or who created it and we have had some testimony 13 about other videos from Plaintiff witnesses 14 indicating that these videos were compilations 15 of things that were made over time and based on 16 some of the details in them, almost certainly 17 were made in part after the invention was 18 applied for, which would make them irrelevant. 19 So I believe that Plaintiffs 20 intend to use this exhibit with their first 21 witness, Mr. Mayer. We don't have any 22 indication of how Mr. Mayer could authenticate 23 or lay a foundation for this exhibit or provide 24 evidence that would establish its relevance

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1
       given what little we know about the video.
 2
                     THE COURT: Okay. Well, why don't
 3
       we hear from Mr. Partridge?
 4
                     MR. PARTRIDGE: Your Honor, it is
 5
       correct that Mr. Mayer is going to address this
 6
       video. Actually the video that we're using was
 7
       one that was produced by Google in this case and
8
       it so happens that during the course of the
 9
       development of the system that is the subject of
10
       the patent application from the '94 through the
11
       end of '95 and the product that followed in '96
12
       that ACI made.
                     THE COURT: What is the video?
13
14
                     MR. PARTRIDGE: The video actually
15
       is a video of the system in operation that they
16
       use to promote what they were -- what they had
17
       under development, the research work that they
18
       were doing with respect to this system and they
19
       produced a series of these videos. There's a
20
       voice over on it and it shows the system and the
21
       system in operation.
22
                     THE COURT: When were the videos
23
       produced, the date?
24
                     MR. PARTRIDGE: Oh, the videos
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1 were made between '94 and '96 and the version 2 that we're using is an early '96 version that 3 shows the work that was done leading up through 4 '94, '95 and a few additional slides that were 5 added in early 1996 that don't go to anything in 6 the patent application, they are just better 7 graphics of satellite images and the like that 8 they used in the video. And Mr. Mayer will 9 identify this as an Art+Com created video that 10 illustrated the development of the system. It's 11 clearly -- there's no authenticity issue here. It is what it is. And in so far as its 12 13 relevance is concerned, it's very much directed 14 to the identification of the issues that we're 15 trying to address during the '94, '95 16 development period and how they addressed them. It will be about three minutes worth of video 17 18 that addresses those issues, Your Honor, and the 19 part that we're playing is all about what they 20 were could go in '94 and '95. 21 THE COURT: What is the point of 22 what they were doing in '94 and '95? 23 MR. PARTRIDGE: It actually shows, 24 Your Honor, how this system actually looked, the

1 visuals that they were able to create as they 2 were developing their invention. So for 3 example, you will see --4 THE COURT: What issue does it 5 relate to? MR. PARTRIDGE: It relates to the 6 7 process of identification of issues that needed 8 to be solved as part of the development process. 9 THE COURT: Why do we care about 10 that? 11 MR. PARTRIDGE: Well, because it 12 distinguishes what was done before from what 13 they did. I think it relates to at least Factor 14 8 of the Georgia Pacific factors, the utility 15 and advantages of that invention over old modes 16 and the video was clearly talking about the 17 steps forward that they were making. It clearly 18 addresses the advantages of the patent invention 19 over what preceded. It's relevant to that and I 20 would also argue it's relevant to how one comes 21 about addressing and how they did come about 22 addressing the issues, the problems that they 23 solved in the '94, '95 time period. So it's 24 relevant to damages, it's relevant to the

1 process of development of the invention. 2 THE COURT: Okay. Mr. Snyder. 3 MR. SNYDER: Thank you, Your 4 Let me make just three points. First of 5 all, this -- contrary to what ACI's counsel just 6 said, there is a question about authenticity. 7 As I pointed out and as ACI's counsel pointed 8 out, this document was produced by Google 9 because we found it on the internet and it was 10 responsive to a document request. 11 THE COURT: Wait one moment. The 12 individuals who came in are not jurors, right? 13 Okay. All right. 14 MR. SNYDER: So we don't know the 15 providence of this exhibit. We don't know where 16 the video came from. There actually is a 17 question about its authenticity. When ACI says 18 this was a video that was created by them for 19 demonstration purposes, they didn't produce it 20 to us, because they produced it for 21 demonstration purposes. We don't know who 22 created this thing. So there is a real question 23 about authenticity. Second, Your Honor, there 24 is a serious question about relevance. They did

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1
       not say --
 2
                     THE COURT: As to authenticity,
 3
       let's let Mr. Mayer attempt to authenticate it
       and then we'll decide whether its been
 4
 5
       sufficiently authenticated to have a jury
       consider it.
 6
 7
                     MR. SNYDER: Thank you, Your
8
       Honor.
 9
                     THE COURT: On the relevance
10
       issue?
11
                     MR. SNYDER: On the relevance,
12
       what you did not hear ACI say was the video is
13
       an embodiment of the invention. He says they
14
       are going to talk about advances and in fact the
15
       testimony has been to the contrary, that at the
16
       time when he just described this video having
17
       been made, the inventors claimed that they had
18
       not yet reduced the invention to practice in a
19
       way that they could illustrate to people in 1994
20
       or 1995. They repeatedly denied that, so there
21
       is no relevance to this video showing a Georgia
22
       Pacific factor of utility and advantages of the
23
       invention because it's not about the invention,
24
       it's about something else, some other things
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1 that they were doing. We don't deny that they 2 were doing work, but this case is about the 3 invention. 4 Third point, Your Honor, I believe 5 that this is another, and we're going to hear many of them, back door way of talking about 6 7 copying. What they can't to do is they want to 8 show the video and then they want to show Google 9 Earth and say see, they look really alike. 10 THE COURT: I'm not going to let 11 them do that. 12 MR. SNYDER: Thank you, Your 13 Honor. And I do appreciate that and I'm sure 14 that you will enforce that line. 15 For the specifics of this video, 16 it does not address the issue of relevance and 17 because it is not an example of the invention, 18 it cannot satisfy the only relevance that 19 they've identified, which is Georgia Pacific 20 Factor #8. 21 THE COURT: Okay. 22 MR. PARTRIDGE: Mr. Mayer will 23 testify that the video was made in early '96, 24 which is after the patent application is filed,

4

6

8

14

24

1 so it's clearly about where they were at that particular point in time. It is illustrating --3 we do not intend to use this as a side by side with Google Earth, but what it does show, in an 5 effective pictorial way, is what this invention accomplished, what its end result was and while 7 at various stages during development in '94 and '95 they added new ideas right up until the time 9 of the filing of the patent application, the 10 video ends up being an illustration of their 11 objective, what it was they were trying to accomplish, and compared to old modes of doing 12 13 this, the ability to actually fly over the earth and move into any position relevant to the 15 That's what the video shows, and that's 16 what they accomplished in 1995 prior to the 17 filing of your application and then in '96 they 18 added some slides, added some additional 19 graphics to this video. 20 THE COURT: I'm going to allow it. 21 But don't go on and on about it, okay? 22 MR. PARTRIDGE: We will not. 23 intention, Your Honor, is to introduce it and then just play it and that's it.

1	THE COURT: Okay.
2	MR. PARTRIDGE: Thank you.
3	MS. SIMMONS: Your Honor, there
4	are two remaining exhibit issues that don't
5	relate to the copying bucket of issues. Exhibit
6	PTX-85 and 295B that will be used with the
7	deposition oh designation for Mr. Jones. These
8	two exhibits are e-mails that were written by a
9	person who won't be testifying at the trial day,
10	won't have deposition testimony from. Mr.
11	Meschkat, a former employee of Art+Com who later
12	went to Google, so they are not going to be able
13	to establish a foundation for it, but more
14	importantly, the e-mails are hearsay.
15	THE COURT: Okay.
16	MR. HALL: Your Honor, Mr.
17	Meschkat was actually a Google employe at the
18	time the e-mails are written.
19	THE COURT: He wasn't an officer?
20	MR. HAWES: He wasn't an officer,
21	but he is still within the scope of his
22	employment in discussing, he's not discussing
23	non-Google things.
24	THE COURT: Can I see them?

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1
                     MS. SIMMONS: Yes, Your Honor.
 2
                     May I approach? There is a
 3
       particular concern with 295(b) which includes
 4
       hearsay within hearsay. In the last paragraph,
 5
       Mr. Meschkat is relaying a conversation --
 6
                     THE COURT: Let me read them
 7
       first.
8
                     So what is it about 295(b)?
 9
                     MS. SIMMONS: In the second
10
       paragraph, Mr. Meschkat is describing to
11
       Mr. Mayer a conversation that Mr. Meschkat says
12
       he had with Michael Jones, in which he says that
13
       Michael Jones said something about his
14
       inspiration for Keyhole.
15
                     THE COURT: I thought you were
16
       arguing that TerraVision was prior art; right?
17
                     MS. SIMMONS: Mr. Meschkat in this
18
       E-mail is referring to the T-Vision system from
19
       ACI.
20
                     THE COURT: Oh, I see.
21
                     MS. SIMMONS: So essentially he's
22
       implying that Mr. Jones said I was inspired by
23
       ACI's system when I created Keyhole, which is
24
       not correct, but more importantly is hearsay.
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1
                     THE COURT: Well --
                     MS. SIMMONS: He wasn't -- he
 2
 3
       didn't send it from his Google.com E-mail either
 4
       for 295(b).
 5
                     THE COURT: Okay. Anything more
       about this?
 6
 7
                     MR. HAWES: Just, Your Honor, I'll
8
       point out this exception rule we're relying on
       which is Rule 801(d)(2)(d), which was made by
9
10
       the parties agent or employee on a matter within
11
       the scope of that relationship and while it
12
       existed. And that was true at this time for
13
       Mr. Meschkat and Mr. Jones, they were both
14
       Google employees talking about a Google product.
15
                     MS. SIMMONS: That's not correct,
16
                    This is a Google employee talking
       Your Honor.
17
       about a ski trip in a conversation he had with
18
       Mr. Jones on a bus. And relaying what he
19
       purports that Mr. Jones said. So it's hearsay
20
       within hearsay.
21
                     THE COURT: So at the time of
22
       295(b), both the author of the E-mail, Mayer and
23
       Jones were all at Google or not?
24
                     MS. SIMMONS: That's correct.
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1
                     MR. HAWES: Your Honor, Mr. Mayer
 2
       was the recipient, he was not at Google.
 3
                     MS. SIMMONS: I'm sorry, Mr. Jones
 4
       and Mr. Meschkat.
 5
                     THE COURT: Where was Mr. Mayer at
 6
       that point?
 7
                     MR. HAWES: He was at ACI, Your
8
       Honor.
 9
                     THE COURT: So this is somebody
10
       from Google writing to somebody at ACI?
11
                     MR. HAWES: Correct, Your Honor,
12
       about what someone else at Google said.
13
                     THE COURT: And then what about
14
       the other one, Jones is at Google; is that
15
       right, and Mayer is again, at ACI?
16
                     MS. SIMMONS: Correct.
                                              So this
17
       relates to the copying issue that we discussed
18
       earlier. There is no relevance in Google's view
19
       to this E-mail other than to try to imply that
20
       Mr. Jones somehow used information learned about
21
       Art+Com's system from the 1999 demonstration at
22
       SGI in addition to it being hearsay.
23
       Mr. Meschkat was not an agent of Google.
24
                     THE COURT: Mr. Meschkat was not
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1
       an agent?
 2
                     MS. SIMMONS: A senior executive
 3
       speaking on behalf of Google.
 4
                     THE COURT: But he was an
 5
       employee?
 6
                     MS. SIMMONS: That's correct.
 7
                     THE COURT: What are these going
8
       to be introduced?
                           This morning?
 9
                     MR. PARTRIDGE: Your Honor, the
10
       one, the one from early 1995, the first one that
11
       you looked at, is going to be used in
12
       Mr. Mayer's testimony. And what you will hear
13
       from Mr. Mayer about it, I think this will help
14
       you in resolving this, is that this was the
15
       first time that he realized Michael Jones who he
16
       knew from ten years earlier when he was at SGI
17
       when they worked together and others at Art+Com
18
       worked with him, it's the first time that he
19
       knew that Michael Jones had been at Keyhole and
20
       Keyhole had been acquired by Google and Google
21
       now in running Google Earth was using the
22
       Keyhole technology.
23
                     And it was on that basis that he
24
       decided to reach out to Mr. Jones approximately
```

1 a year later to try to initiate conversation 2 about doing business together, including 3 addressing the patent at issue. So this is the information he 4 5 relied upon in order to start communications 6 with Google in the first place towards trying to 7 license the patent. So it's the kind of trigger 8 point to Mr. Mayer's knowledge and actions 9 following that knowledge that led to the 10 discussions themselves. 11 Without that document, we have --12 that's what he relies upon in order to decide to 13 write an E-mail a year later to Mr. Jones saying 14 hey, I know you're at Google, we have some 15 issues with Google Earth, maybe we should get 16 together and discuss business. 17 Mr. Jones flies to Berlin, he 18 meets with them for a couple of days, they talk 19 about old times. And they then pursue 20 negotiations. 21 And the negotiations were 22 conducted in the context of a prior 23 relationship, a personal relationship that existed which then led to a different level of 24

1 competence and trust than one might ordinarily see in this kind of discussion. 2 3 So it's very important to that 2006 series of interactions. And both sides 4 5 have relied upon exhibits from 2006 to support 6 their case. And without this chain of events, 7 there is no way for us to explain why we acted, 8 why ACI acted the way that it did in those 9 discussions with Google in 2006. 10 THE COURT: Was Mr. Meschkat 11 deposed? No, right? 12 MR. PARTRIDGE: He was not deposed 13 by either side. 14 THE COURT: Why is that? He is 15 still alive? 16 MR. PARTRIDGE: I believe he's 17 still alive. And I don't know -- I don't 18 remember the answer to that, Your Honor. I 19 can't recall if it was an availability issue, 20 what the issue was back at the time of 21 discovery, but neither side deposed him. 22 THE COURT: I'm going to exclude 23 these. You said you're not arguing copying and 24 these could, seems to me only be used for that

1 purpose. To the extent they have any tangental 2 relationship to issues in this case, I think 3 under 403 they're prejudicial. 4 MR. PARTRIDGE: May I make one 5 suggestion in that regard? What if we redacted 6 the inspired part, because I actually care more 7 about the knowledge of Mr. Jones being at 8 Keyhole and Google rather than the inspired part 9 in that document as a trigger point. 10 THE COURT: We're talking about 11 295 (b)? 12 MR. PARTRIDGE: Yes, Your Honor. 13 Let me get my notebook and we can talk through 14 that. 15 Looking at the January 2005 one, 16 and what if we took out, we put a period after 17 the parenthetical that ends ski trip and redacted, "And he said that TerraVision was the 18 19 inspiration for Keyhole.com. I thought you 20 might like that." 21 And that way I have what I need as 22 sort of that trigger point for why he reached 23 out to Michael Jones for the purposes of 24 licensing negotiations and we've addressed the

1 concern that Your Honor has about whether this 2 could be used to argue copying, which is not our 3 intent. THE COURT: Okay. If you make 4 5 that redaction, I'll allow you to use that 6 exhibit. 7 MR. PARTRIDGE: Thank you, Your 8 Honor. As to the second one, counsel, where is 9 this used? Is it in the Jones? 10 MS. SIMMONS: That's right. It is 11 in the Jones designation. 12 MR. PARTRIDGE: I quess I fail to 13 see how this one raises a copying issue. Maybe 14 I'm blind to this, but it looks fairly innocuous 15 in that regard to me. But perhaps counsel can 16 explain it. I just don't see it, Your Honor. 17 MS. SIMMONS: If I may address. 18 For both of these I will note that Mr. Mayer can 19 certainly testify that he had a personal 20 relationship with Mr. Jones without using 21 exhibits. And Exhibit 85 does not go to so much 22 the personal relationship that Mr. Mayer and 23 Mr. Jones may have had, it goes directly to 24 Mr. Jones having seen the ACI demonstration in

1 1995, the demonstration including of the Earth 2 Tracker, and so this E-mail is directly related 3 back to the demonstration. It doesn't establish 4 that there was a personal relationship, it 5 establishes that there was a relationship based 6 on Mr. Jones having seen that demonstration. 7 THE COURT: Yes. I'm going to 8 exclude this one under 403. I think again the 9 idea of using the Earth Tracker in the Google 10 installations is potentially prejudicial. 11 MS. SIMMONS: Thank you, Your 12 Honor. 13 MR. PARTRIDGE: Thank you, Your 14 Honor. 15 THE COURT: Anything else? 16 MR. SNYDER: Two other issues, 17 Your Honor, related -- they have come up in the 18 context of the final jury instructions, but I do 19 think it's important to address the issues now 20 because they could relate to what occurs in the 21 openings and the evidence that is presented. 22 The first of those relates to the 23 date of the hypothetical negotiation. And the 24 second relates to the extent to which the patent

1 claims require the steps be performed in order. 2 And there is now apparently a dispute about both 3 of those things. And we don't want there to be 4 -- we think that the evidence is clear based on 5 what has happened in the record already, that 6 the hypothetical negotiation date should be 7 2005, not 2010. 8 And we also believe based on the 9 intrinsic and extrinsic evidence that the order 10 of steps in the patent has to be in the order in 11 which they're identified in patent claim 1, steps A through G. I don't want the trial to go 12 13 any further if there is going to be a dispute 14 about what is essentially a claim construction 15 issue without addressing that first. 16 THE COURT: Well, as to the date 17 of the hypothetical negotiation, I'm inclined to 18 agree that 2005 is the pertinent date, but I 19 need to hear testimony that the Google product 20 was essentially the same in 2005, which I 21 haven't heard yet. 22 And as far as the second question 23 is concerned, which -- I looked at the patent

carefully, and I'm not -- it seems to me that

1 some of the steps need to be in order, but 2 others not necessarily. What is your contention 3 about Google's noninfringement based on the 4 order of the claims, I mean the order of the 5 steps in the claim? 6 MR. SNYDER: Based on the way the 7 language is worded, I'll turn this over to 8 Mr. Williamson in just a moment to be more 9 detailed, but based on the way the steps are 10 described in the claim and the antecedents for 11 the language that is used in each of those steps, they couldn't be performed any different 12 13 order. 14 The part that is most important is 15 that the substeps of part F occur in order, and 16 that step G occur only after step F is 17 completed. And step G says repeating step F. 18 THE COURT: Well, we have to see. 19 I think that, for example, step B could be the 20 first step. Do you agree with that? 21 MR. SNYDER: I don't know how you 22 could do step B without already having the 23 plurality of data sources which is in step A. 24 THE COURT: My question is does

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       that really matter to you whether step G be
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       performed first?
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                     MR. SNYDER: It does not, Your
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       Honor.
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                     THE COURT: So what I'm trying to
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       avoid is a blanket statement that the steps have
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       to be performed in order because it seems to me
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       that some of the steps could be performed out of
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       order. And your focus is on F and G; right?
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                     MR. SNYDER: That's correct.
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       Before I overstep my knowledge of the details of
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       this issue, let me turn this over to
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       Mr. Williamson if I could.
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                     MR. WILLIAMSON: Your Honor,
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       you're correct, with the slight addition that
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       because the steps in B through E are essentially
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       mirrored in the substeps of F, there is no other
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       way to read the claim but that B, C, D, E all
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       have to be done in order. The subsets of F need
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       to be done in order and then step G.
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                     THE COURT: But your concern is
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       about if being completed before G is done?
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                     MR. WILLIAMSON: That is the
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       primary concern, but within F there are also
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1 issues about those steps. 2 THE COURT: Does this get back to 3 the issue that we had earlier about whether all 4 of the segments have to be subdivided. 5 MR. WILLIAMSON: It's not, Your 6 Honor. It is only with respect to a separate 7 noninfringement theory that's in the records and 8 been part of the case from the beginning and 9 that is with respect to a particular smaller 10 session. 11 THE COURT: What is the 12 noninfringement theory? 13 MR. WILLIAMSON: That in the 14 accused products, there is not the processing of 15 the substeps in F for each of the smaller 16 sections for a single division, the argument 17 that the Court excluded was that there was an 18 alternative noninfringement argument that all of 19 the smaller sections of the first division 20 needed to be processed before any of the next 21 level. That is not going to be part of the case 22 anymore. 23 THE COURT: Let me tell you what 24 my problem is. I think we need to bring the

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       jury in and begin and we can spend some time
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       addressing these issues later on as such.
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       don't think they need to be resolved this
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       morning.
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                     MS. WILLIAMSON: My understanding,
       based upon the review of the demonstratives for
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       the opening is that's not going to be
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       addressed --
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                     MR. PARTRIDGE: Your Honor, I
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       think this is a point for at the end of the day
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       because I don't believe any of the witnesses
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       today are going to be --
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                     THE COURT: Let's do that then.
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       Is there anything else we need to do before we
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       bring the jury in?
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                     MR. WILLIAMSON: I don't believe
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       so, Your Honor. Thank you.
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                     THE COURT: Thank you. Let's
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       bring the jury in.
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                     (Jury enters.)
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                     THE COURT: Be seated. Good
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       morning members of the jury. Welcome back to
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       the United States District Court for the
       District of Delaware. And as I mentioned last
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1 week at the end of the trial, it's going to be 2 your job to decide the facts based on the 3 evidence that you hear and this morning I'm going to give you some preliminary instructions 4 5 and at the conclusion of the evidence I'll give 6 you more detailed instructions that you should 7 follow in reaching your decision. Your job at 8 the end of the day is to decide the facts of 9 this case. Now, this case, as you know, 10 involves a dispute relating to a United States 11 patent and we're going to watch a short video 12 that will help you understand the patents as has 13 been prepared by it Federal Judicial Center. 14 It's entitled introduction to the patent system. 15 And by the way, you're going to be given later a 16 notebook that has a sample patent to which 17 they're referring to in the video. 18 MR. PARTRIDGE: Your Honor, I 19 believe the notebooks are ready, if you'd like. 20 THE COURT: Well, let's do them 21 after the video. 22 MR. PARTRIDGE: Okay. 23 (Video playing.) 24 MR. FOGEL: Hello. I'm Jeremy

Fogel. I've been a United States District judge since 1998 and I'm now the Director of the Federal Judicial Center. As you probably know by now, this is a patent case so you may be wondering how can I sit in judgment on a case like this when I'm not entirely sure what a patent is? We hope to answer that concern with this brief video which will give you some of the background needed to do your job.

This case will involve some special issues that the judge and lawyers will explain to you, but all patent cases involve some basics that you will learn about. This video will discuss what patents are, why we have them, how people get them and why there are disputes that require us to call in a jury like you. We'll also show you what patents look like. The United States constitution gives Congress the power to pass laws relating to patents. Article 1, Section 8, Clause 8, allows congress to promote the progress of science and useful arts by issuing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

A patent then is an official grant by the United States Government that gives it's owner certain rights to an invention. Those include the right to stop others from making, using, selling or offering for sale the invention that is claimed in the patent. A

patent lasts for a specific period of time, usually 20 years from the date that the

applications filed by the inventor. But because

it takes an average of three years for the

12 application, the effective life of the patent is

Patent and Trademark Office to act on the

13 closer to 17 years.

A patent represents a bargain made between the government and the inventor. In return for the right to prevent others from using the invention, the inventor must enhance the public knowledge or what we sometimes call the state of the art, by adding something new and useful to it. A famous example is Thomas Edison's invention of the light bulb, harnessing electrical power for illumination transformed society and led to many other important breakthroughs.

During the lifetime of the patent, it's disclosure may inspire new inventions and after it expires the invention is free for anyone to use. It is this combination of something new and valuable to the public that justifies granting time-limited patent protection to the inventor. A patent is in many ways like a deed to a piece of property. It grants the owner the right to keep people off the property or to charge them a fee like rent for using it.

And just as a deed indicates boundaries defining the land owners property, a patent claim defines the patentees domain. The patent system works because the inventor is required to describe the invention in clear and specific terms so that the public knows what the boundaries of the invention are. Once a patent is issued by the government, it becomes available for public inspection. In that way anyone who learns of the patent can read it and understand exactly what the inventor invented and the limits of the patent set forth in the claims.

1 Now that we understand what a 2 patent is, let's take a closer look at the term 3 invention. An invention is a new way of solving 4 a problem or a useful new machine, manufacture 5 or composition of matter. The patent process 6 begins in the mind of the inventor and in 7 particular when the invention is formulated in 8 the mind of the inventor. Patent lawyers call 9 this conception. This is when the idea occurs 10 to the inventor clearly enough that he or she 11 can write it down and explain it to someone. 12 To qualify for a patent, the 13 invention needs to be new and useful. Also it 14 must not be obvious to one of ordinary skill in 15 the field. If the inventor believes these 16 requirements are met, he or she will prepare an 17 application for figure with the Patent and 18 Trademark Office whose headquarters are in 19 Alexandria, Virginia, just outside of Washington 20 D.C. 21 The Patent and Trademark Office,

The Patent and Trademark Office,
often called the PTO, is the agency of the
federal government whose job it is to examine
patent applications to make sure they were in

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1 proper form and complied with the requirements 2 of the law. The inventor can prepare an 3 application for filing with the PTO, but usually it is drafted by a patent attorney or a patent 4 5 agent who specializes in what is called 6 prosecuting patent applications. That is the 7 process by which they are evaluated. attorney or agent works with the inventor to be 8 9 sure the invention is described and claimed in a 10 way that complies with the law and the 11 regulations of the PTO. 98 percent of patent 12 applications are made online, using the PTO's 13 electronic filing system, although a few paper 14 applications are still made. When the PTO receives the 15 16 inventor's application, it is first checked to 17 see if it is complete and complies with all the 18 PTO's application requirements. It then assigns 19 a submission to a patent examiner, a staff 20 person with a background in the field or art the 21 invention false within to evaluate the 22 application and decide whether a patent can be 23 granted. 24 You've been given a sample patent

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to refer to as you watch this video, so you already have a sense of what a patent looks like, but now let's take a closer look at the three main parts of a patent.

To begin with, there is some basic identifying information on the first page. material is highlighted in your handout. On the upper right side of the page is the number assigned to the patent by the PTO. And on the left side is a title that describes the invention and the names of the inventors and sometimes the company to whom they had assigned the patent. Also on the left is the date when the patent application was filed. And back on the right the date when the patent was issued. There also is more detailed information on the first page, including a list of numbers following the caption Field of Search. numbers identify previously issued patents the examiner looked at or searched to make sure the applicant's claimed invention really is something new, not obvious and thus patentable. Also listed on the first page is what we call references, that is previous patents or articles

that describe the technology or prior art known at the time the application was filed.

It may seem strange to you that we call this preexisting technology prior art, even though it has nothing to do with artists. We use the word art in it's historical sense to include inventions and other subject matter recently related to the claimed invention. We also refer to the latest technology as state of the art and we say if someone who can understand and apply the technology that he or she is skilled in the art.

The second major part of the patent is what we call the specification or written description. As is the case in your sample, it is usually the longest part of the patent. It includes an abstract, which is a brief summary of the invention, a background section that describes the nature of the problem the invention is supposed to solve, one or more drawings called figures that illustrate various aspects of the application and a detailed description of one or more embodiments of the invention. An embodiment is a specific device

or method that uses the invention such as a particular form of light bulb.

of the patent is the claims. These are the numbered paragraphs that appear at the end. The claims are what give the public notice of the boundaries of the invention. They are similar to the description of property you may have seen in a deed, referring to precise measurements taken on the ground. The judge will instruct you further on how any technical or ambiguous terms in the patent claims should be understood.

Now that we've discussed the main parts of a patent, let's look at how the PTO processes patent applications, what we referred to earlier as prosecution of the patent application. This process begins when the inventor's application arrives at the PTO.

There it receives a filing date. Under the American Invents Act of 2011, filing dates will determine who is awarded the patent if there are competing valid applications. In 2012 the PTO received nearly 600,000 patent applications and issued more than 270,000 patents.

1 After determining that the 2 application is complete, the receiving branch 3 also decides what field of technology an application relates to and assigns it to the 4 5 appropriate examining group. In order to make 6 that decision, the patent examiner usually looks 7 at patents that have been issued previously in 8 the same or closely related fields of art. 9 examiner has computer data bases that contain 10 information used to accomplish this task. 11 Another part of the job is to decide if the 12 inventor's description of the invention is 13 complete and clear enough to meet the 14 requirements for a patent, including the 15 requirement that the description enables someone 16 of ordinary skill in the field to actually make 17 and use it. However, because the job of 18 examining so many applications is challenging, 19 the law requires the applicant to tell the 20 examiner whatever he or she knows about the 21 prior art that might be important to the 22 examiner's decision on whether to allow the 23 patent. We call this the applicant's duty of 24 candor. One way the applicant can satisfy this

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duty is by bringing pertinent prior art to the attention of the examiner either in the original application or in other submissions called information disclosure statements. In this way the decisions of the examiner are based on both the information provided by the applicant and on the information the examiner finds during his or her prior art search. Sometimes the examiner concludes that the application meets all the requirements we've discussed and allows the patent to issue at this first stage, but more frequently the examiner will reject the application as deficient in some respect. decision will be communicated by the examiner in what is called an office action, which is a preliminary notice to the applicant of what the examiner finds insufficient or unpatentable. For example, the examiner may reject certain claims as being unpatentable because a journal article written and published by another person prior to the effective filing date of the patent application disclosed what the applicant was currently claiming. At that point the applicant prepares a written response either agreeing or

disagreeing with the examiner. An applicant who agrees with the examiner can suggest amendments to the application designed to overcome the examiner's rejection.

Alternatively, an applicant who disagrees with the examiner's office action can explain the reasons for the disagreement. This exchange of office actions and responses goes on until the examiner issues a final office action, which may reject or allow some or all of the applicants claims. The overall process is referred to as the prosecution history of the application.

The written incoming and outgoing correspondence between the PTO examiner and the applicant is also called the file wrapper. In the past these file wrappers were all in paper form as were the submitted applications. Now they are most often electronic and may occasionally be paper as well.

Most patent applications filed on or after November 29th, 2000, are published by the PTO 18 months after the inventor has filed his or her application, so that the public may

1 inspect it. Once a final PTO office action has 2 3 occurred and one or more claims have been 4 allowed, the applicant is required to pay an 5 issuance fee and the patent is printed. 6 the date shown on the upper right-hand corner of 7 the first page of the patent it is issued by the 8 PTO and the inventor receives all the rights of 9 the patent. That date is highlighted on your 10 sample. 11 Once a patent has issued, the 12 inventor or the person or company the inventor 13 has assigned a patent to can enforce the patent 14 against anyone who uses the invention without 15 permission. 16 We call such unlawful use 17 infringement, but the PTO and its examiners have 18 no jurisdiction over questions relating to 19 infringement of patents. If there is a dispute 20 about infringement, it is brought to the court 21 to decide. 22 Sometimes in a court case you're 23 also asked to decide about validity; that is, 24 whether the patent should have been allowed at

all by the PTO. A party accused of infringement is entitled to challenge the whether the asserted patent claims are sufficiently new or non-obvious in light of the prior art or whether other requirements of patentability have been met. On the other side a defense to infringement lawsuit is that the patent in question is invalid. You may wonder why it is that you would asked to consider such things when the patent has already been reviewed by a government examiner. There are several reasons for this.

arguments that the examiner did not consider such as prior art that was not located by the PTO or provided by the applicant. In addition, there is, of course, the possibility that mistakes were made or important information overlooked. Examiners have a lot of work to do and no process is perfect.

Also, unlike a court proceeding, prosecution of a patent application takes place without input from people who might later be accused of infringement. So it is important

1 that we provide a chance for someone who is 2 accused of infringement to challenge the patent 3 in court. 4 In deciding issues of infringement 5 and validity, it is your job to decide the facts 6 of the case. The judge will instruct you about 7 the law which may include the meaning of certain 8 words or phrases contained in the patent. 9 So it is your primary duty as 10 jurors to resolve any factual disputes and in 11 some cases such as infringement and validity to 12 apply the law to those facts. 13 To prove infringement, the 14 patentholder must persuade you by what is called 15 a preponderance of the evidence relating to the 16 facts of the case that the patent has been

To prove invalidity, the alleged infringer must persuade you by what is called clear and convincing evidence that the patent is invalid. The judge in your case will explain these and other terms and provide additional specific instructions at the appropriate time.

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infringed.

Good luck with your task and thank

1 you for your service. 2 (End of videotape.) 3 THE COURT: Okay. Thank you. 4 That's a lot to digest and we're going to come 5 back to some of these issues and give you some 6 further explanation of what patents are and in 7 the issues that are going to be before you. 8 Now, the first phase of the trial 9 after I finish giving you preliminary 10 instructions will be opening statements by the 11 lawyers. And they'll preview the case for you 12 and prepare you for the evidence which is the 13 main phase of the trial. 14 First, ACI, the plaintiff who 15 brought this suit will have the opportunity to 16 call witnesses and present evidence, then 17 Google, the defendant being sued, will have an 18 opportunity to do the same thing. 19 And after Google's case, ACI will 20 present rebuttal evidence, and then finally 21 Google with present surrebuttal evidence. When 22 all the evidence has been presented, the lawyers 23 will give you their closing statements. 24 And as part of that process, I'll

give you instructions of the law and procedure that will guide your decision and then you will go off to deliberate on a verdict and that will go on, that deliberation will go on as long as it takes for you to reach a verdict.

As I mentioned last week, the trial is expected to take five days, that is Monday through Friday. And each day will last from 9:00 to 5:00, with a lunch break of an hour and two fifteen-minute breaks in the morning and afternoon. And lunch will be provided for you, so you don't need to leave the building. And I'm hoping that you'll be able to begin deliberations after lunch on Friday.

Now, as I mentioned, the plaintiff who brought this case is Art+Com Innovational Pool, and I have been referring to them as ACI and they'll be referred to that way throughout this case. And then we'll refer to the defendant as Google for short.

You know the suit is about patent infringement and that means that ACI asserts that Google is infringing its patent. And Google asserts two defenses, first, it asserts

1 that it is not infringing the ACI patent, and 2 second, it asserts that the ACI patent is 3 invalid. 4 And you will hear evidence about 5 both issues, infringement and invalidity. 6 Now, what do you mean by evidence? 7 The evidence in this case will consist of sworn testimony from witnesses, exhibits received into 8 9 evidence, and stipulations made by the parties. 10 Now, some of the witness testimony 11 will be given by witnesses who appear here in 12 person, and other witness testimony will be 13 introduced in the form of depositions which are 14 basically videotape of earlier question and 15 answer sessions with the witness given under 16 oath. And those depositions substitute for live 17 witness testimony and you should treat 18 deposition testimony the same as you would live 19 testimony. 20 And I mentioned earlier, exhibits. 21 These are simply documents or products or 22 devices used in evidence. A stipulation is an 23 agreement among the lawyers about a fact. If 24 the lawyers have stipulated that a fact is true,

you should accept that and think nothing further of it.

One last thing about the evidence. Statements and arguments by the lawyers such as you will hear this morning are not evidence.

The lawyers may suggest to you how you should interpret the evidence, and you may or may not agree with them, but their statements and arguments are not themselves evidence in the case, and that includes the opening statements and closing arguments as well as questions to the witness.

Now, evidence has to be admitted to be considered by you. And when I refer to something being admitted or admitted into evidence or received into evidence, I mean that you may consider a particular statement or a particular exhibit in making your decisions at the end of the case.

You're to consider only the evidence that has been admitted in this case.

And you may draw from facts that you find to have been proven any reasonable inferences or conclusions that you feel are justified in the

light of your experience.

Now, from time to time during the trial, one of the other lawyers for the parties may object to the introduction of evidence, and I'll rule on those objections, but you should not infer that I have any opinions on facts of the case or that I favor one side over the other. If I overrule an objection, I'm permitting that evidence to be introduced and you should not think anything of the fact that it was objected to.

On the other hand if I sustain an objection, I'm excluding from evidence that particular item. Don't worry about why, it could be any number of reasons, and do not spend your time wondering about what a witness or a document might have said.

admitted only for a particular purpose, consider it only for that purpose and not others. And finally, if inadmissible evidence is introduced before I can prevent it, I may order that it be stricken and then you should entirely ignore it.

Now, during the trial it's going

to be necessary for me to confer with the lawyers outside of your hearing, or even to conduct part of the trial outside of your presence, as we did earlier in the jury selection. And I will handle these matters as briefly and conveniently for you as I can, but you should remember that they are a necessary part any trial.

It's also my duty to caution or warn an attorney who does something that I believe is not in keeping with the rules of evidence and procedure, and don't draw any inferences against the party whom I caution or warn during the trial.

Now, keep an open mind during the trial. Do not decide any fact until you have heard all the evidence, closing arguments and my instructions. And at the end of the trial, you'll have to make your decision based on what you recall of the evidence.

The exhibits that are introduced in the trial will be available to you during your deliberations. And even though the court reporter here is making a typewritten copy of

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       the testimony, that copy will not be available
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       for use by you during your deliberations,
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       although you can request that a particular part
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       of the witness's testimony be read back to you.
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       It's difficult and time consuming for a reporter
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       to read back lengthy portions of the testimony,
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       so the opportunity to have testimony read back
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       is limited. And I urge you to pay close
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       attention as the testimony is given in the first
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       place.
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                     Now, we come to the juror
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       notebooks that I mentioned earlier. I'm going
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       to ask our courtroom deputy to distribute copies
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       of them to you.
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                     And could I have a copy also,
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       please?
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                     MR. PARTRIDGE: Your Honor, I
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       think I still have the one we gave you from this
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       morning.
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                     THE COURT: Yes, I do. Thank you.
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                     Now, you're free to use these
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       notebooks to take notes at any point during the
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              Everything you write in the notebooks
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       will be kept confidential. At the end of each
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1 day, you're not going to take these notebooks 2 home with you, they'll be kept in the jury room 3 under lock and key. And at the end of the trial 4 any notes that you take will be shredded. 5 don't have to take notes, but you may if you 6 wish. If you do take notes, be careful not to 7 get so involved that you become distracted and 8 miss part of the testimony. 9 Now, in addition to some blank 10 pages for notes you'll find a copy of the patent 11 that was discussed in the video. This is a 12 sample patent. It's not a real patent. And that's under tab A here. It's titled A Patent 13 14 Process and Overview For Jurors. And then in B we have the actual 15 16 patent that's involved here, it's RE44550E. 17 You'll see it's numbered in the upper right-hand 18 corner, and we will refer to this as the '550 patent in the course of the trial. 19 20 And then we'll come back to the 21 patent and I will explain some parts of that 22 later. 23 We also have an exhibit C here, a 24 chart of the asserted patent claims from the

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patent. And also a glossary of patent terms, and interpretations of the patent claims provided and filed in court and we will get to an explanation of that later.

And then at the end you'll see there are pictures of the witnesses who are going to appear, space for notes, pictures of the Google witnesses that are going to be supplied to you later. These are the ACI witnesses that you have here in the notebook for a moment. And let's go back now and take a look at the '550 patent. That's tab B. You see that the patent was granted on October 22nd, 2013. That's in the upper right-hand corner there of the first page. And the patent number which I referred to earlier, and the names of the inventors. It says Mayer, et al., and then elsewhere on this page under inventors and over on the left-hand side it list all four inventors.

It also list the filing date of the patent which is February, which is in the United States, December 17th, 1996, and that filing date was based on earlier filing in

1 Germany on December 22nd, 1995. 2 Now, that December 22nd, 1995 date 3 is going to be important in the course of this 4 trial. And that's referred to as the priority 5 date of the patent. So try to remember that. 6 Now, after the first page here we 7 have the specification, what's called the 8 specification of the patent. It begins with a 9 summary of the patent which is under the heading 10 abstract, and that's a brief statement about the 11 subject matter of the claimed invention. Then 12 there are various drawings here, the next few 13 pages. 14 And then about thirteen pages in 15 after these drawings, there are figures here, 16 there is a written description of the claims and 17 you see that appears in a number of columns, two 18 columns to each page. And then the 19 specification a few pages later with various 20 numbered claims of the patent. You see that in 21 column ten there, it says what is claimed is, 22 and then there are numbered claims. 23 Now, not all of these claims in 24 the patent are involved in this case. You will

find the number of claims in the patent are -they're claims 1, 3, 14, and 28. 1, 3, 14 and
28. Those are the only claims that you need to
concern yourselves with.

Now, normally during trials only the lawyers are allowed to ask questions of the witnesses, but I'm going to do something different in this trial, and that is I'm going to allow the jurors to ask questions. Now, you're not going to do that, be able to do that orally, but it will have to be done in writing. And it is a very specific process so that it's done neutrally and the lawyers in the case won't know which jurors are suggesting questions.

So if there is something that you would like to ask at the conclusion of the witness's testimony after the initial examination and the cross and the redirect, I'm going to ask that each of you take a piece of paper and if you have a question to write the question on that piece of paper.

Now, whether or not you have a question, you should hand your piece of paper to the courtroom deputy, that's so that the lawyers

can't tell who asked the question and everything is kept confidential. And you should not put your name on the form if you do ask a question, again, so the confidentiality is maintained.

Now, after you have written down any questions that you have, and obviously we don't have the opportunity to ask many questions, but if there is a question, I'll review the question, and I will confer with lawyers whether it's an appropriate question that should be asked or whether it should be asked in a different format.

And it's possible that I won't ask the question, and there may be any number of reasons for that, and you shouldn't worry about it if I don't allow the question to be asked.

But if I do decide the question should be asked,
I will review it like I said with the lawyers and then ask the question of the witness or I might ask the lawyers to ask the question of the witness. And after the witness has answered all of the questions, I then may allow the attorneys to ask further questions as a way to follow-up any question that you had.

1 Now, please don't feel compelled 2 to ask a question, but don't be afraid to ask a 3 question if you think it would be helpful, and 4 your questions should be limited to the 5 questions to the particular witness that you 6 just heard, in other words, we can't go back to 7 earlier witnesses. 8 Now, let's come back to the 9 general subject of patents. As you heard from 10 the video, patents are granted to inventors by 11 the Patent and Trademark Office, or the PTO. 12 And a patent allows others -- it's to prevent 13 others from making, using or selling the 14 patented invention that is the invention 15 described by the claims. When someone does one 16 of those things, that is making, using or 17 selling, without the patent owner's position, 18 that's called infringement. And the 19 patentholder can enforce the infringer by suing 20 in federal court and that's what ACI has done 21 here. 22 Now as you also heard from the 23 video, everyone has the right to engage in 24 activity that's not covered by a patent and to

use existing knowledge and principles. A patent can't remove from the public the ability to use what is known or obvious before the invention was made or protection was sought.

And if a patent does that, the patent is invalid. And Google contends here that the claims asserted by ACI are invalid.

And before giving you a little more detail about the parties' contentions, I'm going to come back again amd review some of the things that we saw in the video.

The process of obtaining a patent is called patent prosecution. To obtain a patent an applicant files an application with the patent and trademark office. And the PTO of course is an agency of the Federal Government and it employs trained examiners who review applications for patents. If the PTO's patent examiners conclude the invention is patentable, they will grant a patent. But again, as you saw in the video, the PTO is not infallible and the issuance of a patent is not conclusive as to the patent's validity.

The application includes a section

called a specification. We just went over that and that specification must include a written description of the claimed invention telling what the invention is, how it works and how to make a use it in such full, clear, concise and exact terms so that others skilled in the art, including competitors will know how to make and use the invention without undue experimentation.

Now, we've talked about the patent claims. I've shown you where in the patent those claims exist. Now, after a patent is issued by the PTO, the owner of the patent can request additional prosecution of the patent and that request is called a reissue application and if the PTO again concludes, after a back and forth that the reissue application meets the requirements of a patent the reissue application will result in a reissue patent. And that happened here twice. There were two reissued patents. We're concerned with the second reissue patent. That's the one that you have in your juror notebooks.

Now, the granting of a patent by the PTO carries with it a presumption that the

patent is valid. But the patent office doesn't determine whether the patent is infringed. You heard that also in the video and it's the patent owner's burden to establish infringement. And also as I mentioned, just because the PTO grants a patent does not necessarily mean that the invention claimed in the patent is, in fact, valid. One or more claims may, in fact, not be valid and it's the job of you as the jury to determine if the patent is infringed and is valid.

Now, to help you follow the evidence here, I'll give you a summary of the positions of the parties. And as I mentioned, Plaintiff is ACI and Google is the Defendant and the patent we're going to refer to, as I said, is the '550 Patent.

ACI alleges that Google has infringed certain claims of the product in the patent by using within the United States methods that ACI argues included all the requirements of these claim. These claims that we're dealing with here are called method claims. That's a patent on a method of doing something. Google

alleges that it does not infringe the asserted claims and that the asserted claims are invalid, as I said.

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I also mentioned that there are four claims. They are claims 1, 3, 14 and 28.

And to fulfill your duties of jurors you must decide whether any of these four claims has been infringed and whether the claims are invalid.

Now, to make it even a little more complicated, there are two ways to prove infringement. There's something called literal infringement and then there's something called infringement under the Doctrine of Equivalents. For literal infringement ACI must show that every limitation of the patent claim was met, every one of the steps of the method was performed by Google. Under the Doctrine of Equivalents there is infringement if there are insubstantial differences between the claim, what the claim requires and the accused conduct, but each claim limitation has to be met either literally or under the Doctrine of Equivalents. And I will provide even more detailed instruction on equivalents after you've heard

all the evidence at the conclusion of the case.

Now, a person accused of

infringement like Goggle has the right to argue here in federal court that a claimed invention in the patent is not entitled to patent protection, that it doesn't meet the requirements for the issuance of a patent. In other words, an accused infringer like Google can defend a suit for patent infringement on the grounds that the patent is invalid. And Google asserts that the claims that are asserted here are not valid. And it's your job to consider the evidence presented by the parties and determine whether Google has proven that the patents are not valid by clear and convincing evidence.

Now, in determining whether the '550 Patent is invalid you will be asked to consider items of prior art and I had mentioned to you earlier to pay particular attention to the December 22nd, 1995 date. That's the priority date of the patent. And what constitutes prior art is determined by the priority date of the patent. Only printed

publications made public before the priority date constitute prior art.

Google makes three arguments about validity. First it says that prior art before 1995 date anticipates, anticipate the '550 Patent because one or more of the individual prior art references previously disclosed in each and every limitation of the '550 Patent, that's called anticipation. The second argument is that a combination of prior art references made the invention of the '550 Patent obvious to someone skilled in the art at the time of the 1995 priority date. And then third, Google also contends that the patent is invalid because the invention was in prior use before the priority date and also because the prior inventor ship.

Now, if at the end of the trial you conclude that any of the claims is infringed and is not invalid, you will be asked to award damages. You will receive further instructions on damages at the conclusion of the trial and by instructing you as to damages, I am not suggesting that damages should be awarded. And as I mentioned, the claims of the patent are the

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main focus of the patent case, because the claims are what define the owner's rights under the law. And that is the claims define what the patent owner may exclude others from doing during the term of the patent.

And the claims of the patent serve two purposes. They set the boundaries of what the patent covers and second, they provide notice to the public of what those boundaries When a process is accused of infringing a patent as here, the patent claims are compared to the accused product or process, here process, to determine whether or not there is infringement. And as I said earlier, you're going to be comparing the four claims of the '550 Patent to the accused methods in this case together with construction that the court has given to those claims. Claims are also at issue when the validity of the patent is challenged as here, so you're also going to have to compare those four claims to what the prior art did or described.

In reaching your determination with respect to both infringement and

invalidity, you must consider each claim separately. Following the patents in your notebook you'll find the list of the claims as I showed you earlier. These claims are all listed in the list of patent claims described earlier and after the list of patent claims you'll see the glossary of patent terms. The glossary contains some simple definitions of relevant terms, most of which I have just discussed. And you may find it helpful to refer to those items from time to time during the trial.

Now, although the claims describe the claimed invention, the parties may disagree and they did here, as to what certain terms of the claims mean. And when that happens, they ask the court to interpret the terms of the claims in the light of the patent as a whole. And this is to help you resolve any disagreement and to give you the jury guidance in applying the claims to the facts of this case. And that disagreement happened here before trial, the parties came to the Court and presented disagreements over what certain words in the claims meant and the Court resolved those

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disagreements by issuing what are called claim constructions, which are central to your deliberations.

The parties and the experts are required to use the Court's constructions of the claims when presenting evidence and you must also accept and apply them when you decide the issues of infringement and invalidity.

Now, I'm going to take a moment to review the burdens of proof that each party bears in this case. You saw that mentioned at the end of the video. The burden of proof tells you which side has the burden to persuade you. And in this case, the burden of proof depends on the issue. First ACI as the patent holder and Plaintiff bears the burden of proving that Google has infringed its patent. It has to do that by a preponderance of the evidence which means that it has to show that it is more probable than not that Google infringes. And if you think the evidence on infringement is evenly balanced then Google wins on that issue. conclude that ACI has established infringement ACI also bears the burden of proof of

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establishing damages from Google's infringement.

Again, that's by a preponderance of the

evidence.

Now, on the other hand, Google is the party challenging the validity of the patents bears the burden of proving invalidity of the claims. And as you've heard, it has to prove invalidity by clear and convincing evidence. Proof by clear and convincing evidence is evidence that produces in your mind a firm belief or conviction that the defense has been proven. Clear and convincing evidence is a higher standard than preponderance of the evidence, but it's not as high as the beyond a reasonable doubt standard that a prosecution has to satisfy in a criminal case. In deciding whether the parties have met their burdens of proof under the appropriate standard, you should consider all of the evidence regardless of which party presented it.

Now, I spoke to you last week about confidentiality and confidentiality is so important that I'm going to repeat what I said last week. Until this case is over, do not

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discuss it with anyone and do not allow anyone else to discuss the case in your presence. includes your family and friends. Hold yourself apart from the people involved in this case, the parties, the witnesses, the lawyers and anyone associated with them. If anyone should try to discuss the case with you or otherwise approach you about the case, you should inform me immediately. Do not even discuss the case with your fellow jurors until you have all assembled for deliberations at the end of the case on Trying lawyers in particular aren't allowed to speak with you during the case and when you see them at a recess or past them in the halls, they may not speak to you other than just to say hello. They are not being rude, they are simply following my instructions. As I said, it's fine to say good morning if you're riding in the elevator together, but that's it, nothing beyond that. The lawyers will also not be allowed to speak to you after the case is over unless I give permission, which I will only do if there's an exceptional circumstance that justifies it.

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If you use social networks like facebook or twitter, do not discuss, mention or post updates of any kind regarding the trial in this case. You can tell people about your experience after the case is over. Likewise, do not send any text messages or e-mails about this case or discuss it over the telephone. allow you to have your cell phones in the courthouse, but you must leave them in the jury room during the trial and don't bring them into the courtroom. You may certainly use them during the lunch break or recesses to call or text your family to say for example that you're going to be a few minutes late or to discuss any family problem that you might have, but don't use them to discuss the case.

You're not allowed also to do any research into any fact or issue related to the case. You should not go on the internet to learn more about the case, the parties, the lawyers or patent law. Do not watch or read any news accounts of the trial should you come across them. The reason for all of this is that you're going to be guided solely by what you see

1 and hear in trial in this courtroom. 2 It's an important part of our 3 civil justice system. If two parties disagree, 4 they can bring their dispute to court and obtain 5 a verdict from a fair and impartial jury. Finally, I need to once again 6 7 emphasize that violating the instructions in 8 this respect would be a very serious matter. 9 you can see, a great deal of time, effort and 10 money has gone into getting this case ready for 11 trial, and to trying it fairly and impartially 12 before you. If you were to violate the Court's 13 instruction, it could place all of that in 14 jeopardy and we might have to go back and do it 15 all over again. So please, follow my

> All right. Now, we have arrived at the time for opening statements from the lawyers, and each side has thirty minutes. And plaintiff, Mr. Partridge, you may begin.

instructions to the best of your ability.

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MR. PARTRIDGE: Mr. Hawes will do our opening this morning, Your Honor.

THE COURT: Thank you.

MR. HAWES: Your Honor, I would

1 like to bring a flip chart up if I may. 2 THE COURT: Surely. 3 MR. SNYDER: Your Honor, may I ask 4 him to move that so I would be able to see it? 5 MR. HAWES: I'm sorry. THE COURT: Yes, we all need to be 6 7 able to see it, but the problem is we can't have 8 it too far away from the jury. Mr. Snyder, you 9 could move over on the other side so that you 10 can. 11 MR. HAWES: I'll represent for the 12 Court I'm going to write one number on it and I 13 will clearly represent what that will be before 14 I do it. 15 THE COURT: Okay. 16 MR. SNYDER: Perhaps you could 17 move it over a little bit more so I could see 18 the jury, please. 19 MR. HAWES: Which way would you 20 like me to move it because I don't want to block 21 their view of that? 22 MR. SNYDER: All right. Thank 23 you. 24 MR. HAWES: Is that better?

1 MR. SNYDER: Thank you. 2 MR. HAWES: Is that blocking 3 anyone's view? 4 Good morning. And thank you for 5 serving on the jury in this case. I would guess 6 you thought you would be doing else the week 7 before Memorial Day, but we need your help to 8 resolve an important issue that Art+Com tried to 9 resolve with Google on several occasions. 10 Unfortunately this lawsuit was the only way we 11 could make Google listen. 12 This case is about flying, or at 13 least the view you would get if you really could 14 fly around the world, the powerful visual 15 sensation of moving anywhere on the world and 16 looking down and seeing what you would see if 17 you were hovering above. 18 Ever since the 1930s when Superman 19 debuted in the Action Comics comic book kids 20 everywhere have wanted to have that dream of 21 flying around maybe circling Mount Everest or 22 going somewhere else and seeing what it would 23 look like. 24 You're going to learn in this

trial that the Art+Com inventors were years ahead of their time in developing the patented techniques that allow you or any of us to experience that powerful flying viewpoint. You may have heard of Google Earth when Google Earth was first introduced in 2005. Here is picture of what Google Earth looks like when you bring it up.

In this trial and in the evidence you're going to hear, you're going to learn the real story. And the real story starts ten years before 2005 in Berlin, Germany, with the work of the inventors of Art+Com.

Now, the invention that's at issue in this case is really the second idea that the Art+Com inventors had. The first idea was a stand-alone unit with heavy equipment and if you look in the corner you can see the big ball there. You're going to get to see that with our first witness. His name is Pavel Mayer. And he's one of the Art+Com inventors. And he'll show you how what we call the Earth Tracker worked back in 1994 and 1995.

And he'll explain the techniques

1 that allowed the Earth Tracker to show that 2 great vision of the earth. But the Earth 3 Tracker needed a massive hard drive. It needed 4 a lot of equipment. 5 This case is about the invention, the software invention, the internal techniques 6 7 that allowed that powerful visual image to be 8 released from the heavy equipment and given to 9 anyone who just has a computer. This is 10 Mr. Mayer as he was demonstrating the Earth 11 Tracker back in the mid 1990s. Now, the Earth Tracker was also 12 13 shown at other conferences and here is a picture 14 of it being used at a conference in Japan. 15 You're going to see an actual VHS videotape of 16 Mr. Mayer using the Earth Tracker back in the 17 mid 1990s. You'll get to see what it was all 18 about. 19 It's important to note that the 20 inventors of Art+Com were very enthusiastic 21 about their invention. Mr. Mayer and his 22 colleagues liked to demonstrate it. 23 I want you to remember one thing, 24 Google is going to say that the demonstration

that inventors did make their patent no good.

And when they do that, I want you to remember the two ideas of Art+Com, the first one is the stand-alone unit with the massive hard drives that was needed in order to show the viewpoint, but the second idea were the special software techniques that allowed you to get away from the massive hard drive but still give that visual flying experience to the world. And that's going to be the focus of this case, those special techniques that made that possible.

In addition to Mr. Mayer, Mr. Axel Schmidt has also come from Germany to speak to you. Mr. Schmidt will tell about the things that he did to contribute to inventors and the invention techniques that allowed to unshackle the visual viewpoint from the equipment and the massive hard drives that had been required before.

Now, Mr. Smith and Mr. Mayer when they realized what a big idea they had, what an important idea they had, they did what people with big ideas do, they went to the patent office. Of course for them, they went to the

local patent office in Germany which is why their first patent application is in German.

Now, Mr. Schmidt and Mr. Mayer are going to testify for you today in English. Also Mr. Andreas Wiek from Art+Com is also going to testify for you in English. I just want to warn you, it's not their native tongue. Each of them is going to have an accent and they may have problems with certain words, but they would like to communicate with the Court as directly as they can, so they're going to try to communicate in English.

After the inventors had filed this application in Germany, this wasn't enough, they knew they had a very big idea, so they came to the United States and they filed a patent application here in the United States Patent Office. As you just saw from the video that the judge showed you, the patent office is not always a fast place. When you file your patent application, a patent examiner has to take a look at it, take a look at the prior technology, compare the two and decide whether you deserve a patent.

In Art+Com's situation, they filed the patent application as I said back in 1996. But it took a while for it to issue. So you had to walk through over three years until in August of 2000, the patent office said yes, you deserve a patent, and granted that patent to Art+Com.

Now, during that time, those three years, Art+Com inventors weren't sitting idle, they wanted to go around the world and demonstrate this great idea they had. And they came here to the United States. They came to a company called SGI.

It's important to realize first of all that the Earth Tracker only shows you the results of the method, the secret sauce, the actual software innovations that the Art+Com inventors came up with, you can't tell that from just looking at the Earth Tracker. But still it is a great demonstration.

They came to Silicone Graphics,

Incorporated, or SGI in California. They came
to a showroom at SGI's corporate headquarters
and they showed off their tracker, because SGI
was a big graphics company. Their corporate

showroom is all about showing what cool things could be done with graphic computers. And Art+Com has used SGI computers as part of their early experiments. And this was a great way to show off what they had done.

Well, here at SGI was the first time that Art+Com and Google Earth crossed paths. You see at SGI they also had two employees named Mr. Michael Jones and Mr. Brian McClendon. So those two employees were there at the same time. And Mr. Jones said that he went and looked at the Earth Tracker.

Now, remember, as I said, just looking at the Earth Tracker doesn't tell you all the secret sauce, but he saw what Art+Com could do. He saw the powerful visual experience that Art+Com could create.

So what happened to Mr. Jones and Mr. McClendon? As I said, they were at SGI, but they ended up leaving SGI, and they started a new company. And that company was called Intrinsic Graphix. Now, Intrinsic Graphix as developing a software engine. That software engine was called Alchemy. If you look at the

1 logo, it says powered by Alchemy. That's 2 because they were -- it didn't work out the way 3 they wanted and Intrinsic Graphix was actually 4 purchased absorbed into another company, but 5 before that happened, Mr. Jones and 6 Mr. McClendon created a new company and moved to 7 that company and it was called Keyhole. 8 Keyhole got some rights to that 9 Alchemy technology, but Keyhole was all about a 10 new product, a product called Earth Viewer. You see, Mr. Jones and 11 12 Mr. McClendon wanted to create that same 13 powerful visual experience and they were going 14 to do it with this new product. Now, did they 15 reach out to Art+Com to say hey, we both do some 16 of the similar technology, let's work together? 17 Did they talk to Art+Com about it? Nope, they 18 didn't contact them at all. 19 So we have here in the year 2000, 20 Keyhole starting to work on Earth Viewer and 21 Art+Com already years ahead, in fact they're 22 already getting their patent in the United 23 States Patent Office in this same year. 24 Before we talk about what happened

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time you do it.

at Keyhole thereafter, let's talk a little bit about what it means to have a patent. A patent gives you a property right in your invention, just like you can own a farm or a songwriter can own a copyright in a song. If you own a patent, you have property in the invention claimed in the patent. So what does that mean? Well, anyone with property can get permission to use that property. For example, let's say the Spotify music service wants to play Beatles songs for its customers. Spotify is going to have to contact the Beatles and say we want to play Beatles songs. And what they will do is sign a contract and this contract has a special name, it's called a license agreement. All that means is it's a contract where one person gets permission from another person to use intellectual property. So Spotify will go to the Beatles and say we want to play Beatles songs, the Beatles will say hey, let's sign an agreement, you can play the Beatles songs, but you'll say pay us a little bit every

The same thing can happen with a

1 patent, you get permission in a license 2 agreement. What happens if someone uses an 3 invention or plays a song and they didn't have a 4 license agreement? That's what we call 5 infringement. That's what this case is about, 6 it's the use of a patent without a license 7 agreement. 8 So what happens with Keyhole. 9 Where do Mr. Jones and Mr. McClendon end up? 10 Well, the first thing they do is they start to 11 work on this Earth Viewer product. They hire a 12 CEO and his name is John Hanke. The three of 13 them work on Earth Viewer and they start selling 14 the product. In fact their deal for customers 15 is pay us a yearly fee and you can use Earth 16 Viewer for this flying visual experience. 17 But in 2004, Google learns about 18 Keyhole and Earth Viewer. Google didn't develop 19 any of the basic technology in this case. 20 evidence will show that that technology was 21 developed at Keyhole. Google bought Keyhole and 22 rebranded the Keyhole Earth Viewer as Google 23 Earth. 24 Now with Google Earth we have a

1 situation where it's just version 3.0. 2 kind of funny, usually software the first 3 version is 1.0, with Google Earth it's 3.0 4 because there had already been two versions of 5 the Earth Viewer. 6 When Google bought Keyhole, 7 Mr. Jones, Mr. McClendon, Mr. Hanke all moved 8 over to Google as part of the deal. In fact, by 9 the time Google Earth was released, Mr. Jones 10 had been declared the chief technologist of 11 Google Earth, Google Maps and Local Search. 12 The other thing we know about this 13 acquisition by Google is they gave a lot more 14 publicity to Google Earth. It's no surprise 15 that Mr. Hanke admits that because of the Google 16 connection they were able to deliver this to a 17 lot more customers. And next thing you know 18 everyone on earth heard about the Google Earth 19 and its great visual flying experience. 20 It's no mystery that at this point 21 in time, ACI learned what had been happening. 22 Now, ACI knew that Google Earth was providing 23 that powerful flying experience, but they didn't 24 know how Google Earth was doing it, they didn't

1 know the internals. But some of the ACI inventors had 2 3 known Michael Jones from back in the SGI days, 4 so they reached out to Mr. Jones and they said 5 hey, we're working on some of the same 6 technology, we have got this really valuable 7 patent, maybe we should work together, do a 8 business deal. 9 They might have been a little 10 naive, because they asked Google are you using 11 our patented techniques? And Mr. Mayer will 12 testify that Mr. Jones said no, no, we're doing 13 something different than what your patent does. 14 Well, that's what they were told 15 and then Google called in the patent lawyers and 16 the Google patent lawyers told Art+Com, hey, 17 you've got a problem in this patent and here is 18

some documents that show you that problem.

ACI didn't know one way or another whether those documents were really a problem, but they did know who to ask. They asked the United States Patent Office.

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As the Judge described, the United States Patent Office has a way to do a second

1 check on your patent. It's called reissuing 2 your patent. And so ACI went to the patent 3 office and they filed a reissue application. 4 They said hey, we have been told there are these 5 problems. Can you check, see if there really 6 are. And they sent the very documents that 7 Google said were a problem to the patent office 8 to check and see. 9 Well, again, the patent office 10 takes its time and it wasn't until the year 2010 11 that the patent office told ACI we have checked, things look good, we're going to give you a new 12 13 reissue patent. The problems that Google said 14 were a result of those documents, they weren't

So what did ACI do then? It knew it had a good patent, they had gone through two different checks at the patent office.

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really problems.

MR. HAWES: Well, now ACI looked a lot more closely at Google Earth and from what they could tell of Google Earth's operations, they concluded that Google Earth was using the patented techniques, that Google Earth was infringing that patent.

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Now, you're going to have to go through that same analysis. You're going to have Google Earth's confidential source code shown to you and you're going to have to analyze whether that source code lines up with the claims of the '550 Patent, but you won't have to do it alone. Doctor Ken Castleman is a technical expert who has both experience with regard to image processing, but also knows about Doctor Castleman has worked for NASA. patents. He led the development of the image processing for an automatic microscope that NASA then sent to Mars and it's currently out on Mars taking pictures. He also advises the FBI, although I can't really go into details about what he does for them. And he has also even filed expert reports for the patent office in the area of image processing. Doctor Castleman is a PhD in electrical engineering and his book on image processing has been translated into many different languages and used in universities around the world. He's going to work through that code with you. Luckily you're not going to have to look at the code for every one of Google

Earth's products and look at it and have it be new and go through it again, and the reason is because Google tends to use some of that same code in different products. In fact, Google Earth's technical lead, whose name is Mr. John Rohlf, confirmed, as you can see there, that his focus was on the core of Google Earth client and when he was asked by core, do you mean code that might be shared across the different platforms and his answer was yes. So you won't have to look at different code each time. Doctor Castleman will identify for you where the key code is and then we can show you where it is each time as you go from product to product.

When ACI realized Google Earth was using their patented invention, Mr. Meyer's sent an e-mail saying hey, you need to get permission and here's my deal as to how you can get permission. And I saw I think it looks like it's a little hard to read, but he really gave Google two options. First he said Google, you can pay \$1 for each user of Google Earth. The second option he said was well, how about 10 cents for each use of Google Earth. So he gave

Google a couple of options hoping to get Google to negotiate. Google could have said no, no, no 10 cents is too much, how about 5 cents or maybe even 2 cents, only two pennies per use. Google didn't do that. Google didn't negotiate at all. Google just said we think you're patent is no good and refused to talk. The ACI inventors tried very hard to engage with Google to come to a deal to get Google to seek permission to use the patent, but what they discovered was that Google wasn't willing to share the benefits of Google Earth unless a jury told them to.

Now, you probably have some questions about Google. You know, why didn't Google go work with ArtPlus.com since they were doing the same technology? Why did Google buy Keyhole and then change Earth Viewer into Google Earth and why does Google provide Google Earth to its customers for free, when Keyhole charged a yearly fee.

The thing we get to do today is look at Google's internal documents to answer that question. Now to do that I need to turn off the big screen so that only your monitors

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are showing the documents, because these are confidential Google documents. I think I did that, so hopefully we won't see anything on the These are documents that are not available to the public and I want you to keep in mind that ACI didn't get to see these documents. When ACI was talking to Google in 2006 and 2010, they didn't get to see what you're going to get to see. So the first thing I think we can all agree on is that Google is not a normal company. Google provides so many of its products for free, not just Google Earth, you can watch Youtube videos for free, use Gmail for free, search on Google search all day long, it's going to be free. But you can be confident that Google has a way to make money from all those free products. And we're going to look at

And we're going to look at

Google's strategy document from 2006, only a few
months after Google Earth was released, to

determine how Google makes money off these free
products. So let's look at the detailed
strategy Google had in its internal documents.

It's a pretty big chart, but right in the middle

the term monetization. That's a term you see a lot in Google documents and all it really means is how to make money. How is Google going to turn free products into money for Google? And if you look there, you'll see. The biggest chunk of monetization for Google is to play ads for you and I. How are they going to get us to look at those ads? Well, the very first point on this strategy is the user experience of Google has an integrated search across all the Google products.

Now, what does that mean? That means that if you're searching in Google.com or Google Earth or Youtube, it's all feeding into that one Google search where Google can show you some aps. That's an integrated search. If you look down below the monetization and you say hey, what is it that's supporting that? Well, the first thing of course is search. Google started as a search company and they've got great searching. Don't get me wrong. We certainly agree with that.

What's the very next thing after searching? It's what Google calls Geo

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applications and it's led by Google Earth. So even a few months after Google Earth had been released, Google was already relying on Google Earth as a basis for its monetization efforts as a basis for making money.

How does that work? How do they make money off Google Earth? Well, we can turn a couple images in this internal strategy document and see how Google makes money. They use users, advertisers and publishers and surround this information that Google is gathering and you can see from the arrows they gather the information from everyone, from us, the users, from the advertisers and from the publishers. They call this the UIAP model and you can just see it just stands for the different parts of the framework. And when they discuss it, what they say and you'll see this in the bullet point, is they talk about the dynamic is that having the most users, advertisers and publishers provides data that we use to increase targeting irrelevance. They call this the network effect. That's another term you're going to see a lot in the Google documents.

Network effect, if we can bring the users in, we can make more and more money off the advertisers. If we have all the users, the advertisers are going to want to come to us.

And if we know about the users, we can target the right ads to them and then we can charge more per ad.

So this is all part of their strategy and of course given that model the final bullet point is no surprise. For Google, users are the focus of everything they do.

These are not my words, they are Google's. Not Mr. Mayer's words, but if you remember, Mr.

Mayer offers for permission, he said it would make sense for you to pay us for the users you're bringing in through Google Earth. Well, he didn't know it, but in the internal documents of Google that's exactly how they saw the value as well.

Now, if you remember, Google Earth was part of the Geo applications, so let's look at Google's internal documents that are more specific to those Geo applications. Here's a Geo business discussion. Geo business is Google

1 Earth, Google Maps, the types of products that 2 are looking at the world. So what happens when 3 we look in this strategy document? Well, we see 4 the same thing we saw in the overall Google 5 document, which is the Geo applications are an extension of core search. They are not 6 7 independent of search. If you remember that 8 integrated search, Google feeds it all into the 9 same search and of course Google Earth is one of 10 the key Geo documents. But what I'd like you to 11 notice here, if you look down at the bottome 12 where they list the business objectives, the 13 number one business objective for Google across 14 the board was to grow users and usage. Those 15 are Google's words, not my words, but that's 16 exactly what Mr. Meyer had offered them with his 17 license offer. He said well, you can pay me 18 because I'm bringing in users or you can pay me 19 because I'm bringing in usage, because my 20 patented invention is part of that. Google 21 internally knew that's where the value was. 22 They knew that was their top business objective 23 to grow the users and grow the usage. 24 Well, how does that actually

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create money for them? Well, in this slide and this is a different page of that same document from the Geo business, we see that increases their advertising in several ways. First of all, we see that it increases the search usage in their core search. There's incremented search usage, but it also better targets their You'll see 1, 2, 3 here under core search so it increases at increments the search usage, it better targets the ads and there's new ad formats. All of those bring Google more money. So what's the bottom line for the Geo business? You'll see that right in the middle of the page. Monetization will follow users and usage. Google the more people those bring in and the more those people are using Google products, the more money they can make. That's what it's about for Google. Now, these internal confidential

Now, these internal confidential documents, you're going to get to look through them, actually get to bring them back when you're deliberating on Friday into the room, but you'll also get to work and hear from Doctor Jim Nawrocki, who will walk through these documents

with you. Mr. Nawrocki is an expert in the financial analysis of intellectual property and especially patents and he's going to help you look back in 2010, 2006 and 2005 and figure out if Google had been willing to seek permission, what kind of deal would Google and ACI have come to, what kind of license agreement would they have created and he'll do that based on the internal documents you've been looking at.

Now, in addition to these strategy documents, Google keeps documents about the use and usage. That's no surprise given how important it was in the strategy documents. For example, Google tracks how many times Google Earth is downloaded. And five years ago in 2011 they celebrated when Google Earth was downloaded for the one-billionth time. They also keep back of how often we use Google Earth. This is an internal spreadsheet. I know it's hard to see because it's one of those Excel spread sheets but Google is keeping track every day of how often Google Earth is being used. And this is a big spread sheet, as you can see, as we move through. So that column all the way to the

right with the 10 million, the 20 million, that's how many times Google Earth is being used every day. And the middle column tells you the average amount of time that people use Google Earth. Google Earth is something that people just kind of log on, get their answer and log off. You can see in that middle column that they spend 10, 15, almost 20 minutes on average using Google Earth. They're very involved in the Google system once they start using Google Earth. That's value for Google.

Now, these numbers are just the numbers for Google Earth. But something special happened in 2013. Google took Google Earth and they incorporated it into Google Maps. So when Mr. Nawrocki was trying to figure out how many uses, how many sessions of the Google Earth technology there had been, he had to look at both these numbers, the numbers you see on your monitors for Google Earth, but also he had to look and see how many times was the Google Earth functionality used as part of Google Maps. He added all of those numbers up and he determined that since July of 2010 in the United States

alone Google Earth has been used over 7 billion times.

Now, the exact number is hard to remember because it's a 7 billion number, but Mr. Nawrocki uses it in his calculations. So I'm going to write it down for us. The exact number was 7,099,171,846.

When you're asked at the end of this case to determine how much use Google made of ACI's invention and what the proper royalty should be, I want you to remember that this is Google's use of ACI's invention, these 7 billion uses.

Now, Mr. Nawrocki also took into account what Google did for Google Earth and we are in complete agreement that Google should get credit for the things Google did to make Google Earth a success. And the patent was a big part of it, but Google had big parts of it too, and Mr. Nawrocki identifies each of those contributions of Google and says hey, those are Google's, Google should keep those, but he calculates from that, what's the part of Google Earth that's really because of the patent

because of ACI's patented techniques for providing that powerful visual viewpoint as you fly above the world. And he determined that the proper royalty, when you looked at that, the proper royalty they would have reached would have been between one and two pennies for each use. So we are asking you to award ACI one or two pennies for each of these uses, which calculates out to \$106 million.

Now, Google is going to tell you they should pay next to nothing for the use of this basic patent that was essential to the operations of Google Earth, and essential to getting this many users this many usage for Google. When you hear that, I want you to remember those strategy documents, Google's internal documents that time when they were saying what was most important to them. They were saying it was growing users and growing usage and boy did Google Earth deliver in spades.

Now, during this trial other lawyers from my firm will also be asking questions of the witnesses. That includes Scott

1 Partridge, Natalie Alfaro and Gene Spears. 2 will also be playing for you videos of witness 3 depositions and I would ask that you pay close 4 attention to the videos. It's harder to 5 interact with the videos than it is with the live witnesses, but it's very important. They 6 7 are Google employees who are not coming here for 8 trial and I need you to listen to those videos 9 of what they say about the Google system. 10 Finally you'll see other graphics during the 11 trial. The graphics you aren't able to take back with you when you're deliberating. 12 13 the confidential Google documents, those you can 14 take back and you can look at those while you're 15 deliberating on Friday, but if there's something 16 important in the graphics, you may want to take 17 notes so you'll have it with you on Friday. 18 We appreciate your taking the time 19 to resolve this important dispute and I'm going 20 to thank you in advance for the attention I know 21 you're going to give to the evidence in this 22 case. 23 THE COURT: Okay. Thank you, Mr. 24 Hawes. Mr. Snyder, who is going to do this?

1 MR. SNYDER: I will, Your Honor. 2 Thank you. May I proceed, Your Honor. 3 THE COURT: Let's just put down 4 the thing. 5 MR. SNYDER: This case is not 6 about flying. This case is not about showing 7 pictures of geographies and places. This case, 8 as the Court told you, is a patent case and it's 9 about the language of four very specific patent 10 claims that are in that patent that's included 11 in your notebook. 12 ACI just talked to you for a half 13 an hour and they didn't tell you once what those 14 claims require. They didn't tell you once what 15 their invention is. What they claim to have 16 invented was a very, very specific way of 17 showing information, geographic information, you 18 have to follow a number of different steps. I'm 19 going to show that language to you, because they 20 didn't. Google does not follow those steps with 21 it's Google Earth products. Google doesn't 22 infringe this patent because it does something 23 different. ACI shouldn't have gotten that 24 patent in the first place, but most importantly

Google doesn't use what they claim they invented, the very specific technique that you're going to hear about, and that they never showed you.

My name is Darin Snyder and along with the rest of our team I'm proud to represent Google. I'm going to spend a little bit of time this morning, I've got about half an hour to tell you what the evidence in this case is going to show. Half an hour is kind of a long time to have to sit and listen to me, so I thought it would be helpful if I show you in advance a little bit about what I'm going to talk about and what the evidence in this case is going to show.

First you're going to get a little bit of introduction in the evidence in Google and in particular in Google Earth then we're going to talk about what the evidence will show of Google and how Google Earth uses a different approach than the one that's claimed in the patent, the very thing that this case is about. Then we're going to talk about Google's and ACI's discussions. And you heard a little bit

about the evidence from ACI, but they didn't
tell you all about it and everything about it
and they didn't importantly tell you what Google
said in response, how Google told ACI over and
over we don't use your patent, and how, in fact,
even ACI acknowledged that they do -- Google
Earth does something different. Finally, I want
to talk to you a little bit about what the
evidence is going to show that ACI is now trying
to claim something that belongs to the public,
something that they shouldn't have a patent on,
and because they shouldn't have a patent and
because that belonged -- that idea belongs to
the public, their patent is invalid.

So Google and Google Earth, you've probably heard about Google. Google has an ambitious message for a company that's less than 20 years old. It has for it's entire short life tried to commit itself to organizing the world's information and making it useful and accessible and its done that through a variety of different products, products that you've heard about and probably used like Google Search or Gmail.

Because it has so many products, Google orders

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its products into a group of different divisions and one of those divisions is the Geo group. Geo just refers to geographic and there are a variety of different products that relate to geography and places and different things. One is Google Maps, its got very convenient turn by turn directions. Another product is Street View and another product, the product that's at issue in this case, is Google Earth. Google Earth is part of this Geo group, but it's only one little part of that Geo group and certainly it's not the most popular of the Geo group. You're going to hear from a number of engineers who work on Google Earth and who helped design and build it. And they are very excited about this product. Google Earth is very popular for good reason. It's very cool. It allows people to virtually move to any place in the world and look around as if they were actually going there and that's a very convenient and fun thing for people to The most popular use probably won't surprise you, people going to look at their very own home, but you can also use it to look at other places like this courthouse. And let's

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take just a few seconds to look at what going to this courthouse would look like if you started out in space and wanted to move down to that view. You can get this nice crisp image of this courthouse and obviously this wasn't taken over the weekend when it was raining, but you had a nice day here. This image of Google Earth is from the desktop version one you could actually use on a PC type computer, but Google Earth is also available for a variety of different devices like smartphones and tablets, available for different types of smartphones like ones that run on Android or ones that run on the Apple IOS operating system. This Google product and the Google Earth in particular solves a number of problems that people have always wanted to solve, and that is how do you look at visual information. People have been trying to look at visual information for thousands of years, probably started the first time somebody drew in the dirt and tried to explain where you could find water. Here's one of the earliest maps of the world as people drew it before they even knew that the world was round. This dates

1 back to the Greeks and Ptolemy. Here's an early 2 version of a globe dating several hundreds years 3 ago where people knew the earth was round, but 4 they wanted to visualize it. People have also 5 been using computers to visualize the earth 6 about as long as computers have been around. 7 One of the earliest version of uses of computers 8 to visualize information was using flight 9 simulators. Remember when ACI's lawyers told 10 you that this case was about flying? ACI did 11 not invent flight simulators. In fact, even in 12 their patent, the patent that's included in your 13 notebook, they note on it that flight simulators 14 already existed long before they applied for 15 their patent. They didn't invent the idea of 16 flying around in a computer and looking at 17 things. Instead, what they claimed to have 18 invented was a very, very specific method of 19 putting information on a screen. 20 So let's talk for a few minutes 21 about what the evidence is going to show about 22 this different approach that Google Earth uses. 23 You heard from the Court and you're going to 24 hear again at the end of the case that you

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cannot get a patent on something that is public. Everybody has a right to use techniques that are public and are not covered by the patent and that's exactly what Google has done. It uses a technique that is different from the one that is covered by the patent. This patent attempts to solve, just like Google Earth does, a particular It's not the idea of flying, but it's the idea of how do you represent, how do you display certain information when you move from a very big area to a very small area? And let me show you what I mean. This is a map of the northeastern United States. It goes basically from Washington, D.C. up to about the Boston And you can see we've marked on here where our town Wilmington, Delaware is located. Now, if you want to see where Wilmington is, how do I get to that particular spot on this map? A very common way of doing that is the witnesses and experts are going to describe to you is to divide that map into a bunch of different areas. And what I've done here on this versions, I've superimposed a big rectangle. That rectangle actually comes from a different patent that

1 you're going to hear about, a patent that was 2 prior art to ACI's patent. And you'll notice 3 that inside this rectangle there are a number of 4 other rectangles that have been drawn so this 5 bigger rectangle has been divided into four 6 smaller rectangles. Two of those smaller 7 rectangles have been divided again into four 8 smaller rectangles. 9 So we go from rectangle to 10 rectangle to rectangle until we have one that is 11 just on the area of Wilmington, Delaware. 12 Now, if you want to look at 13 Wilmington, Delaware, I can just blow up that 14 image. If you go to a paper map and you want to 15 look at a very specific spot on a big map, you 16 get out your magnifying glass and you look in 17 there, can you see the details and the streets 18 and the individual areas? No, because the 19 detail is not there. 20 And the same thing happens if you

And the same thing happens if you have a computer map. If we take that image and we blow it up, you get a very course or low quality image, you can't see anything really there at all.

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So what you want to do if you want to get a good image is you replace that image with different pictures that have better detail to them. And so here in our example we have replaced that low course resolution image of Wilmington with a very high or fine resolution or definition image and now you can actually, you can make out the river before but now you can see the Brandywine, you can see where some of the landmarks are located. You can actually see what you were trying to look at. This solves a very particular problem.

And the patent attempts to solve that problem in a very particular way. And this -- and this is the first time you have had to look at it. This is the language of the patent.

Now, you heard from the Court and you're going to hear again at the end of the case that to infringe a patent, you must perform every single step of that claim. And there are four claims in this case, but every one of them includes all of these elements from claim one.

If Google Earth does not perform

every single one of those elements, then it does not infringe.

Now that's a lot of words and sometimes patent lawyers, they write a lot of words and we're going to walk through those step by step as you hear the evidence and the witnesses, and they're going to explain to you that Google Earth does not do, the very specific process that is describe in this claim language. There is two aspects of this in particular that I want to focus on this morning.

The first is that Google Earth does not request, store and represent each of the smaller sections. And the second one is that Google Earth does not repeat step F as required by step G.

And let me tell you, let me take just a few minutes and explain a little bit more, the evidence that you're going to hear from the witnesses about how that works.

Let's look at step F, step F says
that you have to request higher resolution space
related data, that's basically going to be
pictures or other things for each of the smaller

sections. So for each one of these sections you have to request higher resolution space related data. Then you have to store the higher resolution space related data and you have to represent the data for the field of view in a pictorial representation. Each time you have to request each of the smaller sections.

Now, you're going to get to hear from Mr. Peter Birch. Mr. Birch is actually going to sit with us during the trial. He is the long time product manager for Google Earth and he spent almost ten years of his life working on that product.

Mr. Birch has a bachelor of engineering degree from California Polytechnic. He has got an MBA. He has worked at a number of companies before he got to Google. Now he has spent a decade of his life working on that product and he's going to explain to you his experience of working with it, from working on the code to working with the engineers. Google does not request each of those smaller subsections, it just does not do it. It uses a different approach that's designed to be faster.

You're also going to hear from an expert named Michael Goodchild and he's here in the courtroom with us today. Dr. Goodchild is a rock star in this field. He has been working with the visualization of geographic information for more than forty years. He has a gigantic two volume textbook just designed to visualizing and representing geographic information. He has been an expert, and he has got decades of experience and he teaches at a number of

Dr. Goodchild is going to walk you through Google Earth and explain to you how it works just as you'll hear from Mr. Birch. And he's going to compare that to the specific language of the claims and he's going to show you step by step how what Google Earth does is different from what they claim in that claim language.

universities and a professor emeritus.

Let's talk about the second one, I told you that there were only two. In step F you have to go through all of those substeps, and then step G says you have to repeat step F.

So what does step F tell you to

1 You have to divide a section into a do? 2 plurality of smaller sections, plurality just 3 means one or more. You divide it in a plurality 4 of smaller sections, you request a higher 5 resolution data for each of the smaller 6 sections. You store data, you represent data, 7 and when all that is done, then you repeat step 8 F. 9 That is not the way that Google 10 That is a very specific rigid way of works. 11 taking a course image and turning that into a higher detailed fine resolution image. Google 12 13 does not do that. This is one way to do it, 14 turns out that it's kind of slow. 15 And the evidence is going to show 16 that Google adopted a different approach from 17 the very beginning. It uses an approach that is 18 much faster and designed to get to that fine 19 detailed image sooner than you otherwise would. 20 You are going to hear from Mr. Birch how Google 21 Earth works and how it does not use this 22 repeating step. 23 You're going to here from 24 Dr. Goodchild confirming how Google Earth works

1 and he's going to compare it claim by claim, 2 element by element to this language and show you 3 it does not do what the claim requires, the very 4 specific method in this claim. This change is 5 not about just going around and looking at 6 places and moving from place to place on a 7 computer. They don't own a patent on that. 8 People have been doing that for decades. 9 What they have a patent on is this 10 claim language. And Google Earth doesn't do it. 11 ACI even knows Google Earth doesn't do it. 12 Soon after Google Earth was 13 released in 2005, Pavel Mayer, one of the 14 inventors wrote to Google and wrote to one of 15 the people who is responsible for developing 16 Google Earth to congratulate him. And what did 17 he say in his E-mail? He said you succeeded 18 where we failed. Probably you saw yourself that 19 I have no bad feeling about that fact that you 20 succeeded where we failed. Then he went on. 21 said you figured out most of the same things on 22 your own, and you had a lot of new ideas we 23 never thought about. That's exactly right.

Google has a lot of new ideas that they never

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thought about. They came up with a different way. It doesn't matter whether it's better or worse, we're not trying to decide which one you like. The point is it's different. And the evidence is going to show that it was different and ACI knew it was different. Google has been telling ACI that it's different ever since they have been first contacted.

those conversations. Most of the conversations that ACI lawyer was talking about between Google and ACI occurred with this gentleman, Michael Jones. Mr. Jones has been involved with this product for a very long time. He's here in the courtroom. And you're going to hear from Mr. Jones his incredible passion for this project and how proud he is that it has become so popular.

Mr. Jones and a few of his colleagues started a company called Keyhole.

They then used Keyhole to create a product called Earth Viewer. Earth Viewer was released in 2001 and gained a lot of notoriety. It become pretty famous because national news

organizations used it to talk about world events. But ACI never contacted Keyhole. ACI never contacted Keyhole or Mr. Jones while he was at Keyhole to say you know, we think you might be using our patent. No.

The evidence is going to show that ACI only contacted Google. Google purchased Keyhole in 2004, and released Google Earth based on the Earth Viewer product in 2005. And it was only after famous Google purchased the Keyhole product that ACI decided to contact him.

During those discussions, they
went back and forth and, in fact, ACI asked
Google do you want to buy our patent. And they
had a bunch of back and forth about the
possibility of Google buying the patent because
Google thought well, we might want to buy this
just to add to our assets, we got a portfolio of
patents, maybe we want to put the ACI in that
one. Never once did Google say that it used the
claims in this patent.

In fact just to the contrary,

ACI's lawyer just told you, Google told ACI we

don't use your patent, and ACI even told Google

1 that ACI didn't think Google used its patent. 2 These conversations that you hear about and 3 you're going to hear more evidence about were 4 not about whether or not Google used the patent. 5 You're going to hear the video 6 testimony of Mr. Andreovits and in that 7 testimony what did Mr. Andreovits say about 8 whether Google used their patents, he was asked, 9 during this time did Art+Com communicate to 10 Google or discuss with Google the possibility of 11 Art+Com patent being infringed? 12 Answer: As to Art+Com said to 13 Google, hey, you are infringing the patent? 14 that didn't happen. Those conversations weren't about 15 16 whether they used the technology or not, because 17 Google told them that they were not. They had a 18 different technique, not the very specific 19 detailed one that you saw in that patent. 20 Google has been telling them that for ten years, 21 and we're still telling them that and they sued 22 us anyway and that's why we had to come here so 23 that you could listen to the evidence and you 24 could establish once and for all that Google

does something different, it does not practice that patent.

There is one more topic I need to talk to you about and that is the fact that ACI is trying to own something that is public. You heard from the Court and you're going to hear again at the end of the case, the end of the evidence, that you cannot take something that belongs to the public. You cannot take something that is known or obvious and get a patent on it. If it's known or obvious, then, and it was known or obvious before the date of the invention or before the protection was sought, you're not entitled to a patent.

This idea, that specific technique that's claimed in the patent, that was known, that was known before they applied for a patent in the United States. And as a result of that, it's not valid.

You might ask yourself, I'm not a patent examiner. How am I going to make that decision? But that's what you as a group are allowed to do together because you're going to hear the evidence, you're going to see the

documents, you're going to get to listen to the witnesses, and you're going to be able to hear evidence that the Patent and Trademark Office never had, and based on that evidence, you'll be able to conclude from clear and convincing evidence that this patent is not valid.

I want to talk about two aspects of that evidence now. First, there is a system that was developed by a company called SRI International. And the name of their system is TerraVision. SRI International used to stand for the Stanford Research Institute and they do a variety of very interesting projects.

This project in particular, the

TerraVision project was designed to take
information about visualizing geographic
information on computers. This whole idea of
moving around and make it public, that was their
goal. You're going to hear from one of the
leaders of that project, Mr. Stephen Lau. He's
in the courtroom with us today. Mr. Lau is
going to testify about how that project worked
and what it accomplished. Unfortunately you
can't hear from the other leader of that

project, Mr. Leclerc, because he's passed way.

But Mr. Lau will be able to tell you what they

were doing, show you records of the publications

they had, describing their system and explain to

you how what they were doing was the same thing

that ACI claims in that patent.

When that occurred turns out to be very important for when -- whether or not ACI's patent is valid. SRI and Mr. Lau demonstrated their system at a variety of different public conferences. One of them was in 1994 at a conference called Magic. And Magic relates to an information system that Mr. Lau is going to describe for you. They demonstrated again at August 1995 at a conference called Siggraph.

There were thousands and thousands of people who attended the Siggraph conference and were able to hear and see about the TerraVision system.

What the law says as the Court will tell you is that if a system is publicly demonstrated, if it is known, publicly known more than a year before the US application, then the patent is not valid. That year expired in August 1996. But you can see from the face of

the patent that's included in your notebook at tab B that ACI did not file for a patent until December of 1996 in the United States. That means that their application was too late. This idea was dedicated to the public, they can't get a patent on it.

And they knew that what ACI -- I'm sorry, what SRI was doing was even based on the same technology as the one that they had. This is an E-mail from Mr. Pavel Mayer, one of the inventors to SRI, Mr. Leclerc. And what did Mr. Mayer say to them. He said we found your home page a few days ago and were really astonished about the fact that there is a project with the same name, the same goals and based on the same technology, the same name, the same goals and based on the same technology.

Well, you heard ACI lawyer tell you about their T-Vision project. It wasn't always called T-Vision, the project with the big ball and all the other things they told you about, it wasn't called T-Vision all the time. They originally called it TerraVision. And then they discovered

that wait, there is somebody else out there that has a project called TerraVision. That was

Mr. Lau and Mr. Leclerc's project at SRI.

Now if you have two things that have the same name, who gets to keep the name? The one who came first. And ACI acknowledged that SRI Mr. Lau and Mr. Leclerc's project came first. And so ACI, the plaintiff, decided to change the name, they agreed to change the name of their project to TerraVision.

So it's sometimes a little bit hard to keep straight and the documents are not going to help because will there were times when ACI's project was called TerraVision. The thing you need to remember is SRI's TerraVision came first, it was the same name, the same goals and the same technology.

There is one other part of the evidence that I want to talk about, and that relates to a system that -- and a paper that ACI the plaintiff demonstrated itself. I mentioned the Siggraph 1995 conference where SRI put on a demonstration in August of 1995. The very same inventors submitted a paper for that conference

as well. That paper was then put on a CD-ROM and it was made available to all the thousands of people who attended that conference. That paper describes in great detail exactly how this system works. It describes the very steps that they claim in that patent. And that patent and the date of that patent -- I'm sorry, that paper and the date of that paper and this conference turn out to be really important.

This is the same timeline that I just showed you a minute ago related the SRI.

That same timeline turns out applies to this paper that the plaintiffs submitted for the Siggraph 1995 conference. They submitted a paper for a conference and it was distributed to this conference in August of 1995.

make that public, you have one year to file your US patent application. That year expired in August of 1996, and when they filed their US application in December, it was too late. You might say to yourself, you know, that doesn't seem quite fair, it's just a few months. Why does the law do that? But it turns out that is

really important.

You heard in the video and you heard from the Court about how a property gives you rights and you heard ACI's lawyer talk about the boundaries of those claims. Once something belongs to the public, you're not allowed to claim those boundaries anymore. You're not allowed to build a fence on that anymore. It's like somebody who walked into a national park and started putting up fences and saying this is mine now, the law says you don't get to do that.

That's what ACI is trying to do because they made this publication more than a year before they filed their US application and that means that their patent is invalid.

There is one more subject that I need to talk about. ACI spent a lot of time talking about how all this money that they think they ought to get paid. For them do that, when you listen to Mr. Nawrocki, their expert explain how they come up with this huge amount of money, you're going to hear about him talk about a lot of products that aren't Google Earth. You're going to hear him talk about a lot of things

that aren't the actual amounts that Google Earth earned in revenue or in profit. He's going to glom together a lot of other properties and he's going to use a lot of projections that don't have anything to do with reality. That's the only way they can come up with a number that's nearly as high as the one they're asking you for. The reality is that Google Earth is a popular product, but it doesn't make a lot of money.

You're going to hear from our expert, Mr. Brett Reed. Mr. Read has advanced degrees in economics and has three years of experience in these areas. Mr. Reed is here today as well. Mr. Reed is going to explain to you all of the mistakes in Mr. Nawrocki's analysis and why you shouldn't listen to it.

You should never get to this issue and I really hate to have to mention it at all, it just makes me uncomfortable because Google doesn't do this. You're going to hear the evidence and it's going to show you that Google does not infringe this patent. And you're going to hear the evidence that that patent isn't

1 valid. This is the last chance I'm going 2 3 to have to talk to you until the end of the 4 trial and ACI is going to get to put on their 5 evidence first. All I ask is that you follow 6 the Judge's instructions and keep an open mind. 7 You all have been very attentive and I know you 8 all are going to continue to be as you listen to 9 the evidence, because as you listen to the 10 evidence, I'm confident you will agree that 11 Google Earth does not practice the very specific 12 method that is claimed in this patent. And the 13 evidence is going to be clear and convincing 14 that ACI's patent and these particular claims 15 are not valid. 16 Thanks very much. 17 THE COURT: Thank you, Mr. Snyder. 18 It's now time for our morning 19 We'll take a fifteen-minute break to 20 allow the jurors to stretch their legs, and then 21 later on after that we'll come back and we'll 22 hear evidence from the plaintiff, and eventually 23 we'll get to the lunch break. 24 I just remind you during the break

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       do not discuss this case with anyone else or
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       among yourselves. So we'll recess for fifteen
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       minutes and come back let's say at 11:30.
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                     (Jury leaving the courtroom at
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       11:12 a.m.)
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                     THE COURT: Is there anything else
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       that needs --
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                     MR. PARTRIDGE: Two administrative
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       matters, Your Honor. The first is that we will
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       need to swear an interpreter when we start the
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       first witness. It will be Pavel Mayer.
12
       name is Ms. Wiesner. She is here, so we'll need
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       to swear her so that her interpretations are
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       true and to the best of her abilities. I don't
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       think it's likely we'll need interpretation, but
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       I can't guarantee that. We agreed on
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       Ms. Wiesner as the interpreter. This is an
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       agreed use of an interpreter. I don't know if
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       we can get another chair up here somewhere --
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       she'll stand back there during Mr. Mayer's
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       testimony.
22
                     THE COURT: Do you want to swear
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       the interpreter now or in the presence of the
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       jury?
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1 MR. PARTRIDGE: That probably 2 makes sense to swear her now. 3 THE COURT: Fine, let's do that. 4 THE CLERK: Please state and spell 5 your name for the record. 6 MS. WIESNER: My name is Ulrike, 7 and that is spelled U-L-R-I-K-E, W-I-E-S-N-E-R. 8 9 ULRIKE WIESNER, 10 the interpreter herein, having first 11 been duly sworn on oath, was 12 examined and testified as follows: 13 THE COURT: And that's pronounce 14 Wiesner? 15 I'm going to explain to the jury 16 what's going on when they come back from lunch. 17 MR. PARTRIDGE: And the second 18 administrative point, Your Honor, is at some 19 point during the testimony of Mr. Mayer, we 20 would like to move the device that's over in the 21 corner just in front of the witness box so that 22 the jury can see it. And with your permission, 23 I would like Mr. Mayer to come down from the 24 witness stand and show the jury how that

1 operates. It would only take like a few minutes 2 and I think given the location of our court 3 reporters, he should be I think clearly heard by 4 them from that particular position, so with your 5 permission we would like to do that as well. THE COURT: Any objection to that? 6 7 MR. SNYDER: I don't have an 8 objection. I don't know how heavy that is, Your 9 Honor, so I don't know how practically we move 10 it, but I do not have a legal objection. 11 MR. PARTRIDGE: We left it on the 12 rollers, Your Honor, so Mr. Sillman and I will 13 have to walk up and push it together and it will 14 take us about a minute to do. 15 THE COURT: Thank you. Anything 16 else? 17 We'll be in recess and be back at 11:30. 18 19 (A brief recess was taken.) 20 THE COURT: Be seated. Are you 21 ready to bring in the jury? 22 MR. SNYDER: Your Honor, we do 23 have an order to sequester witnesses. I just 24 want to make sure that we take a minute and make

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       sure there aren't any precipitant witnesses in
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       the courtroom.
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                     MR. PARTRIDGE: Just experts, sir.
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                     THE COURT: We're all set.
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                     MR. SNYDER: Yes. Thank you, Your
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       Honor.
 7
                     (Jury entering the courtroom at
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       11:32 a.m.)
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                     THE COURT: You may be seated.
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       Now, the jurors have their notebooks which help
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       you track the witnesses. And then when the
12
       witness takes the stand, you'll see that there
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       is a woman standing behind the witness. That's
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       Ms. Wiesner, and she is a translator in case we
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       need her in the course of these witnesses's
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       testimony.
17
                     Mr. Partridge.
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                     MR. PARTRIDGE: Thank you, Your
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       Honor. For our first witness, we will call
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       Mr. Pavel Mayer, one of the inventors of the
21
       patent. Mr. Mayer, would you take the stand,
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       please.
23
                     And accompanying him will be our
24
       interpreter, Ms. Wiesner, who will be standing
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       back behind the witness in the event that he
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       requires any interpretation today.
 3
                     THE WITNESS: My name is Pavel
 4
       Mayer, P-A-V-E-L, M-A-Y-E-R.
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 6
                         PAVEL MAYER,
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                 the deponent herein, having first
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                 been duly sworn on oath, was
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                 examined and testified as follows:
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                     MR. PARTRIDGE: Your Honor, we
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       have some witness notebooks if she may approach
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       and hand a notebook to the witness. And we have
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       two for the Court and one for opposing counsel
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       as well. These contain the exhibits that we'll
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       be using during Mr. Mayer's testimony.
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                     May I make a very brief
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       introduction, Your Honor?
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                     THE COURT: Yes.
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                     MR. PARTRIDGE: Lady and
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       gentlemen, Mr. Mayer is our first witness this
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       morning. As you heard he is one of the
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       inventors on the patent that is at issue here.
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       His testimony is going to go a little further
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       than what you might expect to hear from an
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1 inventor on the technology. He will talk about 2 that and the development of the technology, but 3 as you will also hear, he was involved in 2006 4 in discussions with Google so he'll be 5 testifying about that, and he was also involved in 2010 in further discussions with Google so 6 7 he'll be testifying about that, so it's 8 basically three areas of testimony that you'll 9 hear from Mr. Mayer during his testimony today. 10 And with that introduction. 11 DIRECT EXAMINATION 12 BY MR. PARTRIDGE: 13 Good morning, Mr. Mayer. Q. 14 Good morning. Α. 15 As you heard, we have an 16 interpreter here for you in the event that you 17 require interpretation of my question or if you 18 have difficulty with any answer that you might 19 give in English. And she'll be available to you 20 for both my examination as well as Google's 21 examination. Do you understand that? 22 Yes, I understand. Α. 23 And the one thing that we have 24 agreed upon is if you have a difficulty with

1 some of the words that are used, that you ask for the entire question to be interpreted rather 2 3 than merely a part of it. Understood? 4 Α. Yes, I do. 5 How do you feel about testifying in English here today? 6 7 I'm a bit nervous, but I will do 8 my best. 9 In your deposition, I believe you Q. 10 testified in German; is that correct? Yes, I did. 11 Α. 12 Why the change? 13 Α. I wanted to make sure that the 14 jury can understand directly what I have to say. 15 Ο. Thank you. 16 What is your highest level of 17 education? 18 I have the German apparura, 19 admission to university which is I think 20 equivalent to the bachelor in the United States. 21 Would you tell the jury how you 22 obtained your technical expertise? 23 Some of itself taught, some of it 24 at school and university. I started to get

1 interested in electronics when I was ten years 2 old, and when I was twelve I began to visit 3 evening school and at the age of fifteen I 4 started to work as a professional software 5 developer. 6 When you were at the age of twelve 7 and taking evening classes were those for twelve 8 years olds or for a different group of students? 9 They were normally for grown ups, Α. 10 so I was the youngest participant in that. 11 How is it that you began doing Q. 12 software development at the age of fifteen? 13 It was the teacher at the evening Α. 14 school who hired me to do work for his company. 15 What type of work did you do for him? 16 17 I did develop software for printed 18 circuit board design and for industrial 19 automation. 20 What did you do when you graduated 21 from school? 22 I went to military, it is 23 mandatory in Germany, but I volunteered to 24 become a paratrooper.

1 At some point did you take courses 2 in computer science? 3 Yes. I had four semesters of 4 computer science at the University of 5 Braunschweig. 6 Did you complete your degree? Q. 7 No, I did not. Α. 8 Q. Why not? 9 While studying I was still Α. 10 working, I had to work, and I felt after doing 11 seven years of professional software development 12 at that time I could make better use of my time 13 than to continue to studies. 14 Who is your current employer? 15 Currently I have my own company, and I am a member of the Berlin State 16 17 Parliament. 18 Q. What kind of work do you do with 19 your own company? 20 We are developing products related 21 to artificial intelligence and artificial neuro 22 networks like for example helping visually 23 impaired people to see their environment with 24 their phone.

1 Is the position in the Berlin 2 State Parliament an elected position? 3 Yes, I was elected to this Α. 4 parliament. 5 What are your responsibilities 6 there? 7 I am a member of the committee for economy. I am a member of the committee 8 9 overseeing the state owned companies like 10 hospitals, utilities, housing, and so on. 11 Q. Prior to that particular 12 occupation, what did you do? 13 I worked at Art+Com before that. 14 How long did you work at Art+Com? 15 All in all, about twenty-one, 16 twenty-two years. 17 From approximately when to when? I came to Art+Com in 1990 and I 18 19 left around 2012. Q. Would you tell us a little bit 20 about what Art+Com does? 21 22 I mean, Art+Com as the name says 23 has artists and designers and computer scientists, so back in the '90s we did a lot of 24

1 real time visualization like architectural walkthroughs, designing new cars and medical 2 3 imaging, visualization for training 4 neurosurgeons to operate on the brain or 5 analyzing back injuries. Back in the early '90s, was there 6 7 significant architectural work being done in 8 Berlin? 9 Yes, after the reunification when 10 the war came down, the government then moved to Berlin, so the whole government buildings had to 11 12 be rebuilt, so we did the visualization of it 13 and made people able to walk through these 14 buildings that were not built yet. 15 And you did that through realtime 16 applications? 17 Yes, we did mostly realtime 18 applications and some of it using virtual 19 reality technology with technology in space, 20 some of it was stereo projection. 21 What was your role at Art+Com? 22 I started there as a, was hired as 23 a contractor, then I was hired permanently and 24 did software development, later project

1 management and later I was responsible for the 2 whole development and the whole technology part 3 of Art+Com. 4 Was there a point in time in which 5 you became interested in satellite imagery? 6 Yes, there was a point, I think 7 must have been end of 1993 when a Japanese quy 8 came, Mr. Hiroyoshi Ishibashi from WeatherNews 9 and show us this work. 10 Have you prepared some slides in 11 connection with your testimony here today? 12 Yes, I have some slides. 13 And one just popped up on your 14 screen while you were talking. Would you 15 explain this particular slide, please? 16 Yes, this is Mr. Ishibashi I 17 talked about and his company WeatherNews, which 18 still exists and at that time they also did 3D 19 weather reports for TV stations. 20 And I think you said he paid a 21 visit to your offices; is that correct? 22 Yes, he came to the Art+Com 23 offices in Berlin. 24 Q. What did you discuss during that

1 visit?

- A. He did show us his work and we did show him our realtime visualization work and then talked about what we might do for each other and how we might collaborate.
- Q. What did you think of what Mr. Ishibashi was doing at WeatherNews?
- A. The things he was doing, his 3D weather reports, they looked really great, they were very advanced for this time, but it took him very long to produce them or his computers took quite a long time. It took him about 5 to 25 seconds just to produce a single image of it, so a one-minute weather report, it would have taken two to five hours to produce, which was not ideal.
- Q. And in fact, his problem was the weather would change, is that the idea?
- A. Yes, the weather changes, so you want to be of course as current as possible.
- Q. Did you think at the time you might be able to do it faster?
- A. We were quite sure, with our experience in real time visualization, that we

1 could make this process much faster. 2 Q. Did you then start working on 3 that? 4 Α. We decided to give it a shot to 5 see how far we could get. What were your first steps? 6 7 We asked if he had some satellite 8 data we could work on and did develop some 9 research software to play around with it. 10 Q. Do you have a slide that shows an 11 image of the type of satellite data that you 12 received? 13 Yes, I do have a slide. 14 Is this that slide? 15 Yes, this is one slide of an image 16 that we started to experiment on. 17 Q. What were the major limitations, 18 the major constraints that you ran into at the 19 start of your work? 20 The main problem was or -- yeah, 21 there were two limitations that the computers at 22 that time had. They still have it, but it was 23 more severe at that time. One were the memory 24 limitations, so the data wouldn't fit into

1 memory, which is bad for realtime visualization. 2 And also the computers were much slower, so we 3 could not do much computation on the data when working with the machine. It should be in 4 5 realtime. 6 Q. Can you explain the memory 7 problem? 8 Yes. There were actually two Α. 9 types of memory. One was the main memory and 10 the other a special, very fast so-called texture 11 memory that was even smaller. And we had to 12 feed the data through this quite small memory to 13 get it to be displayed. 14 What is a texture memory? 15 It is, as I said, it is a very 16 small, fast memory. It's a part of a special 17 graphics hardware and it's -- it was fast and 18 small at that time and we had to use it. 19 Did you prepare some slides to 20 enable you to illustrate this problem? 21 Yes, I have some slides. Α. 22 Q. Okay. Let's bring up the first 23 one. 24 A. Uh-huh. So just as an example, if

you have an image of the whole world like this one and for every kilometer of the world you have one pixel, then you have an image, for example, that is 20,000 by 40,000 pixels.

- Q. And what is a pixel? Do you have a slide for that?
- A. Yes. A pixel, as some of you might know, is just a small area on a screen, for example, that makes up an image on the screen. So if you put out a magnifying glass and look on the screen, you will see the single pixels.
- Q. When you showed that map of the world with a number of pixels on the map of the world, you said, I believe, that in that map you would be using one pixel for one kilometer.

 Does that mean like the whole area of downtown

 Delaware, at least the next two or three blocks going in all directions would be just one little dot on that screen?
- A. Yes, that's right. So even this, this would be by today's standards quite a low resolution map, because, as you said, it would have only one color for whole the downtown, but

still this was a huge challenge at that time to deal with such a kind of information.

- Q. Do you have a slide that shows the memory problem in more detail?
 - A. Yes, I have a slide.
 - Q. Could you explain this, please?
- A. Yes. So you just see how data had to be removed or the relevant sizes. So this one image on this would be 2,400 megabytes. We had 512 megabytes of memory at that time, and this was a huge amount of memory, so a lot of computers had just a fraction of that. So when we started it was only four megabytes and we had to fit in the needed satellite images to paint this screen, which was at that time at a resolution that resided in about one million pixels.
- Q. What were the options that you had in order to be able to display the world as shown at the top on a screen?
- A. There are basically two things you could do if you have satellite image. You can scale it so have it with a lower resolutions or you can cut it so you show only a part of it.

Q. What is a resolution?

- A. Resolution is -- there, a slide popped up.
- Q. Another slide popped up. Can you explain it relative to the slide that's in front of you?
- A. Yeah, I think it's fairly simple.

 The thing in the upper left corner, you have a fairly high resolution image that shows a lot of details of my cat in this case. And if you reduce the resolution, you lose detail, but on the other hand, the image with the low resolution only takes a very little storage, so that's to say about resolution.
- Q. How did you approach this problem that you discovered at that point in time?
 - A. Well, we --
 - Q. Do you have a slide for that too?
- A. Yes. I do have a slide. And the basic idea here was to think backwards. Because you have just -- when you have a screen in front of you, then the number of pixels on the screen it doesn't change, so no matter where you look at, you're task is to fill the screens on the

1 pixel with your data. So if you look at the 2 whole earth, which is a lot of data, or if you 3 look at only a small portion of the earth, the 4 number of pixels is the stencil, we have to come 5 up with a way, how to get those data in the 6 proper resolution to paint the screen, so that 7 no matter where we looked at, it would take 8 almost the same time in every case. 9 Let's see if we understand. 0. 10 you look at the slide on the upper right, you're 11 showing the earth on the screen, correct? 12 Yes. This would be a view you get 1.3 when you're high up in space. 14 And are you changing the 15 resolution of the view of the earth in order to fit it on the screen? 16 17 Yes. It has actually then a lower resolution on the screen. 18 19 Q. And with respect to the smaller 20 area that you indicate on the bottom, how does 21 the resolution compare there? 22 It has a higher resolution in this 23 case. 24 But still in the same amount of Q.

1 space or is the same number of pixels on the 2 screen? 3 A. Yeah, the number of pixels on the screen don't change. 4 5 Q. What principles did you apply in 6 trying to solve this problem? I would describe them a lot 7 8 clearly as cut, align and scale, if you like. 9 Q. Do you have a set of slides to 10 enable you to describe the cut and align 11 problem? 12 A. Yes, I do. 13 Let's pull up the first slide. 14 Can you describe this slide? And I think 15 there's two or three others that immediately 16 follow that perhaps you could describe one after 17 the other? 18 A. Yes. So when you have the image of the whole earth and first cut it in the 19 20 middle to get to square images and then you make 21 further and further cuts to subdivide it into 22 smaller and smaller tiles. 23 Q. And you mentioned the third 24 principle is scaling. Do you have a slide to

1 illustrate that as well? 2 Α. Yes. We have I think a small 3 animation of that. 4 Can you explain this, please? 5 Yes. So here you have a 6 combination of cuts that were applied and now 7 you can take, for example, if you take the area 8 of the west coast -- the east coast, sorry. 9 I think it's the east coast. I Q. 10 know you're from Germany, but that is the east 11 coast of the United States. 12 Right. And then you, you cut it 13 out and scale it to a resolution, for example, 14 of 128 by 128 and then you take a larger piece 15 of West Africa in this case and you get the same 16 resolution and you can go on with another part 17 and another part. So in the last case, here, 18 you will have a patch of half of the world and 19 it's also scaled down then to a picture of 128 20 by 128. 21 These were the initial principles 0. 22 that you applied as you started out; is that 23 right? 24 Α. Yes, that was how we got started

on it, so this was really the very beginning of what we came up with.

- Q. And what happened when you applied all three principles, and what was it that you thought would happen when you applied all three principles?
- A. Well, when we did the math on that, how much memory we would need and how much work we could get, we thought it would be much faster than what Mr. Ishibashi was doing, but we didn't think initially it would work in real time.
 - Q. And what did you discover?
- A. We found out that our math, the math was wrong, but the assumptions we made were too conservative. So we found out we don't need the full resolution, so we could have less resolution, and we also do not need, on every step, on every frame load all the tiles, but only exchange a part of them. So in the end, we found out it was 50 times faster, could be 50 times faster than we expected.
- Q. I think Mr. Mayer, you said that your math was wrong, did you -- is that what you

meant? I think you said the math was wrong, but
your --

- A. No, the calculations we did were right, but the assumptions, the numbers we put in the calculations were too conservative. So the result actually -- when we saw it on screen, it was -- it worked much better than we thought.
- Q. And what was your reaction when you saw it and it exceeded your expectations?
- A. When we -- well, when I saw it first running, I mean, this huge map, I do just zoom in and zoom out and probably as nobody ever has seen it before, at least I hadn't and nobody in the company. So yeah, I remember me going around and dragging everyone in and to share my excitement about it.
- Q. Did this lead you to consider doing something more than what you had done up to this point in time? Did you form any objective at this point?
- A. Well, we saw that this had some potential and that we could actually make a realtime visualization of the earth that we could indeed then build a system where we could

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fly around the world and get up into space and then fly down again. So yeah, like to fly like a UFO or a super hero and so yeah, we thought we have to try to build such a system.

- Q. And did you move in that direction then and start developing?
- A. Yes, but we first had to get some funding for that, so yeah, we started. We then made a project proposal and looked for people who might give us money to make it work.
- Q. When did you progress, move far enough forward in that project to where you thought you had accomplished your objective; that is you had solved the problems that you've identified during the course of your work?
- Q. That may have been too long a question. Hopefully you understood it.
- A. Yes. I understood. It's finally -- it took over two years. It took much longer than we thought that it would take to really solve every problem to get everything together to be able to build -- to start building a product. So yeah, about, about -- took about two years, so I think in late '95 we

1 were at the point where we -- where we thought 2 we had all the solutions for all the problems. 3 When did you file your German Q. 4 patent application? 5 Α. It was in December of '95. So this was after you made these 6 7 dis -- discovered these various solutions? 8 Yes. When we discovered all of 9 those solutions and thought we could make it 10 work, we did put everything we knew about it in 11 the patent, so we described basically everything from the start up, from the start to the last 12 13 solutions of the problem and then applied for 14 the patent. 15 What were the major things that 16 you learned over that two-year period? 17 Well, we --Α. 18 And do you have a slide to 19 illustrate this? 20 Yes. I have one. And first we Α. 21 built a demonstrator, so a system that we did 22 build as quickly as possible to see some results 23 and to play around witness. And the 24 demonstrator did show us when we only started to

play around to fly that there were number of problems that we didn't expect we would have in the beginning, with --

- Q. What was the first problem?
- A. The first problem was that we ran into a precision problem. So when we started to use really high resolution data, like if you went down to see on street level, just to see a building details, everything started to jitter like it was like an earthquake, so we didn't know what's wrong at first, so that was the -- and then we find out that it is a numerical precision problem we had to solve somehow.
- Q. Do you have a slide that shows the type of problem you were facing in this regard?
 - A. Yes, I do.
- Q. Would you explain what this is, please?
- A. Yes. It's a little bit -- it's not easy or maybe to understand that, but if you're not a computer scientist at least, but the problem is when you have a 3D scene, the computer uses so-called floating point numbers to represent where parts of the scene are. But

floating point numbers have one problem, that
the larger the number is, the less precise it
is. So you could imagine to measure something
with a floating point number is like having a
tape measure and this tape measure at the
beginning has a very fine scale there, so if you
do not draw it out too much, you can make very
precise measurements. But the more you pull it
out, the bigger the spaces become between the
marks on it. So if you want to measure
precisely, you better don't have to pull it out
that much, because then you cannot tell exactly
where something is.

- Q. Did you discover a solution to this problem and do you have a slide to illustrate that?
- A. Yes. It is on the next slide. So this is a very simplified view, but if you have an observer of a scenery -- it's looking to the wrong side here. He should be looking at the houses. But if you have this whole scene, this whole world, then you have to have a point zero somewhere -- somewhere, where all your points start at zero, like example, in Greenwich, you

1 have point zero on the earth. But if you move 2 away from this point zero then your numbers 3 start to get bigger and bigger and more 4 imprecise and so the one thing you do is you 5 move your point zero, which makes -- you move 6 everything, you move the houses and you move 7 yourself, so that in the end everything looks 8 the same, but doesn't jitter and doesn't break 9 down. 10 Is this -- and I think you said Q. 11 this. Is this an oversimplification of the 12 problem? 13 Α. This is an over -- this is a 14 simplification of the problem, but --15 What happens if you're moving on 16 the screen, does the problem get even worse? 17 Yeah, you have to do that 18 preliminarily and in a way that, yeah, that you 19 have always your origin as close to where you 20 are. 21 The second solution you identified 0. was the concern that a shear amount of data 22 23 problem. Can you explain that? 24 Yeah. I already said it's this

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problem.

one kilometer image was this 2,400 megabytes was a big one, but that's the resolution we started with. So when we went down to like one meter resolution or 10 centimeter resolution, then the amount of data, the number of tiles you had, they became just so big that even a catalog of the data, even just listing what data exists at all would be so big that it wouldn't fit into memory. And with the prototype or with the demonstrator we had in the beginning, we ran into this problem. So the more data we put into the system, the longer it took to start. So in the end, with the demonstrator we sometimes had to wait five to 10 minutes before we could use the system, which became more and more of a

- Q. And did you come up with a solution to this problem?
- A. Yes. The solution was to request data in a way that you don't have to know all the data that is there, so that you ask the data sources to come up in a specific way with the data you need without, but without knowing the exact data in advance.

Q. You mentioned a third problem, I think you called it the local copy data problem.

Can you explain what that means?

A. Yes, that was the other problem.

And with the demonstrator, it was -- it was

feasible to just carry a bunch of artists around

with us, wherever we demonstrated it, but if we

wanted to turn this into a product, we couldn't

give everyone like a stack of hard drives and it

wouldn't have fit on a CD or DVD, so we had to

figure out a way how this all would work over a

network. And so this was basically the third

thing. And we had to find a solution that

combines or combined solution that would solve

all our problems and that is what went into the

patent later.

- Q. Did the fact that you were trying to do this in realtime make these problems more difficult?
- A. It caused another problem insofar as that if you would access the data over a network, you could not stop moving. So you would also have to find a way how to keep moving and keep the data coming in. So it was, yeah,

all more difficult, yes.

2 O. You mentioned a co

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- Q. You mentioned a couple of times something called demonstrator. What was the demonstrator called?
- A. The demonstrator was the system we explored our ideas with that we started with and didn't -- which we did show on a number of occasions then to the people.
- Q. Did the demonstrator include the solutions that you just described?
- A. No, it did not contain these solutions we finally listed. It was the demonstrator that told us about the problems we had to solve, so it was -- it was the system we used for research and which we had to throw away later.
- Q. Did it include some of the initial concepts that you described earlier of cutting the lining and scaling?
- A. Yes, these concepts were included in the demonstrator, these basic principles.
- Q. What did you initially call the demonstrator?
 - A. We called it TerraVision.

1 You were here for the opening 2 statements of Google? 3 Yes, I heard the opening. Α. 4 What was the reason you changed 5 the name from TerraVision to another name? Well, we found that there were a 6 7 number of institutions using this term for 8 something else. One was the SRI system, but 9 this wouldn't have been such a big problem. 10 there was a German trademark on the name 11 TerraVision about some slide shows and that was 12 more important reason why we changed the name. 13 When you changed the name, you 14 changed it to T-Vision; is that correct? 15 Yes, we used the name T-Vision 16 when we did -- when we referred to it in the 17 public, but internally it still has the name 18 TerraVision. 19 During the course of your work in 20 developing the system as you've described it, 21 did Art+Com prepare videos illustrating the work 22 you were doing? 23 Yes, we had our own video studio 24 and did a film of some of the work that we did

1 and put together some videos. And yeah. 2 Was it just one video or was it a 3 series of videos over time? It was a series of videos over 4 5 time, so when we had a new better material, we added this to the videos. 6 7 Q. Are you actually part of the 8 video, are you one of the people that's in the 9 video? 10 A. Yes, it shows me about twenty-two 11 years ago, I think. We'll still recognize you, I'm 12 13 sure. But there is a video that has been marked 14 as an exhibit, PTX 267. Is that a video that 15 you have reviewed from beginning to end? 16 Yes, I have reviewed it. 17 Is that a video that was prepared by Art+Com? 18 19 Yes, this video was prepared and 20 produced at Art+Com. 21 Did you see anything in that video

that was not generated by Art+Com and was not

consistent with the videos you were preparing?

No, it was all Art+Com material I

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was familiar with.

- Q. From reviewing the video, are you able to give us an approximate date of that particular video?
- A. There is I think the earliest material in the video would be from '94, and the latest material I think '97, maybe late '96, beginning '97, but I think '96 would be, late '96.
- Q. After you filed your patent application, did you continue to do work on the solutions that were described in the patent application?
- A. Yes. When we filed the patent, most of it was not implemented yet, so we had to do work over the course of I think one-and-a-half years to make all the methods that work, and then I think we continue to develop the system further until 2001, 2002.
- Q. The video that I referenced, is that a video that also includes some of the work you did after you filed your patent application work focused on some of the solutions in the patent application?

1 Yes, there is definitely some of 2 it has been done after the patent application, 3 especially the parts where we enter a building, 4 so that was not possible with demonstrator. 5 What did you do with these videos, how did you use them? 6 7 We used them to show these to 8 people when we didn't have the system running, 9 and later we also put it up on the internet, but 10 at that time, videos were -- did not work on the 11 internet. 12 MR. PARTRIDGE: Your Honor, I 13 would offer PTX 267, and a request to show it to 14 the jury, please. 15 MR. SNYDER: Objection, Your Honor. Lack of foundation and relevance. 16 17 THE COURT: Overruled. 18 MR. PARTRIDGE: Mr. Lodge, would 19 you play the video that the witness has just 20 described. This will be the first three minutes of the video. Of course if counsel wants to 21 22 play the rest of it, that's their choice, but 23 it's the first part of it. 24 (PTX 267 was played.)

1 (End of video) 2 BY MR. PARTRIDGE: 3 We stopped it with I think an 4 image of you. Is that you at the Earth Tracker? 5 Α. Yeah, this is me. What is the Earth Tracker? 6 7 We used it as an input device to Α. 8 control the system when we presented it in trade 9 shows or public spaces. 10 Q. Could you also control it with a 11 mouse? 12 Yes, the system did also work with 13 a mouse, but we had a problem when using a 14 mouse, people were thinking we were just playing 15 a video, nobody did believe that this was real 16 time. 17 You said you used Earth Tracker at 18 demonstrations, exhibitions; is that right? 19 Α. Yes. 20 Give us an example of that? 21 Yes. For example, here in Tokyo 22 or wherever we have been in public showing it on 23 a large screen, we preferred to use this Earth 24 Tracker device.

1 MR. PARTRIDGE: With the Court's 2 permission, I would like to move the Earth 3 Tracker out so that the witness can describe to 4 the jury how this thing was used. 5 THE COURT: You can do that. 6 MR. PARTRIDGE: This is Physical 7 Exhibit PTX 7. 8 With the Court's permission, I 9 would like to ask Mr. Mayer to come down from 10 the stand and describe in a louder voice so that 11 the court reporters can pick it up, how you 12 would use this Earth Tracker device. 13 THE COURT: You may do that. 14 THE WITNESS: So, yes, you would 15 have this Earth Tracker connected to the 16 computer, and have a large screen in front of 17 you. And then you would turn the ball here, the 18 large track ball and whatever direction you 19 would turn the ball, the earth visible on the 20 screen would turn the same way. 21 And second way to use it was this 22 space mouse, which is like steering wheel or joy 23 stick for flying. So if you put it down, you 24 would go down on to the earth closer, or you

1 could twist it to go left, right, or pull it to 2 go up into space again. 3 Q. Thank you, Mr. Mayer. I think you 4 can resume your seat. 5 MR. PARTRIDGE: Your Honor, we're 6 about to switch subject matter here. Might this 7 be a good time for lunch? 8 THE COURT: We can do that. So 9 it's 25 after 12:00. Why don't we come back at 10 1:25. 11 (Jury leaving the courtroom at 12 12:25 p.m.) THE COURT: Anything we need to 13 14 address before we go to lunch? 15 MR. PARTRIDGE: Nothing from the 16 plaintiff, Your Honor. 17 MR. SNYDER: Nothing, Your Honor. 18 THE COURT: Thank you. We'll come 19 back at 1:25. 20 (A brief recess was taken.) 21 THE COURT: Is there anything else 22 that we need to deal from before lunch? 23 MR. PARTRIDGE: Nothing from the 24 Plaintiff, Your Honor.

1 MR. SNYDER: Nothing from the 2 Defendants, Your Honor. 3 THE COURT: Okay. Let's call the 4 jury back in then. 5 (Jury enters.) 6 THE COURT: Okay. Welcome back. 7 Please sit down. Mr. Partridge. BY MR. PARTRIDGE: 8 9 Q. Good afternoon, Mr. Mayer. 10 Α. Good afternoon. 11 I'd like to start this afternoon Q. 12 by referring you to PTX-1, which is a copy of 13 your patent. And I'll have Mr. Lodge put it up 14 on the screen for all of us. Is this the patent 15 as to which you're one of the inventors? 16 Yes, this is the patent. 17 Q. Are the problems that you 18 mentioned earlier today, this morning, addressed 19 in this patent? 20 Α. Yes, they are addressed. 21 Ο. What about the solutions? 22 The solutions are addressed in Α. 23 there too. 24 I don't want to go through all of Q.

them, but identity like to focus on something I think you called the precision problem. Do you recall discussing that this morning?

A. Yes.

- Q. Is that discussed in your patent as well?
 - A. Yes, it is.
- Q. And first I want to ask you, what happens to the display that the precision problems now solve. You gave us a little bit this morning, but as a lead in to these questions, could you tell us that again, please?
- A. Yes, if the precision problem is not solved, when you go from one place to the other and go very close, you have a lot of detail, then these precision errors make the geometry, the houses, for example, or the images that are there, they start to jitter and start to wiggle around, so it looks as if there would be an earthquake.
- Q. I'd like for you to turn to a slide that you prepared and we'll put it up. It shows a portion of the patent in Column 6, lines 45 to 56. Does this portion of your patent

1 specification talk about this precision problem 2 that you were addressing earlier today? 3 Yes, this is one of the places Α. 4 that addresses this problem. 5 Would you summarize what you're describing here? 6 7 We describe the problem with 8 32-bit floating point representations at that 9 time, but it's still valid for most computers 10 today. And so if you move, as I said, from 11 space down to high resolution areas, then you 12 have to move the coordinate system somewhere 13 closer to the place where you are, where the 14 observer is and where the objects are that 15 you're looking at. 16 In this portion of your 17 specification, if you look at the third line 18 from the bottom, you use the word continuously. Do you see that? 19 20 Α. Yes. 21 What is the meaning of the use of 22 the word continuously? 23 That you have to do it all over 24 again as you move.

1 This morning we showed a video and 2 when you were describing the video, you 3 mentioned something about going inside of 4 buildings. Do you recall that? 5 Α. Yes, I do. I've asked Mr. Lodge to pull up 6 7 just a small piece of that video and remove the 8 voice over and I'd like you to describe for the 9 jury what we're seeing relevant to this 10 precision problem which you identified. 11 Uh-huh. Okay. So now we're Α. getting quite close to the -- this is the 12 1.3 memorial, a church in Berlin or satellite image 14 of it, and now we've added 3D geometry here. 15 And this closeness or this level of detail, it 16 would not be possible without this solution 17 outlined in the patent and, yeah, especially if 18 you have details like the interior of the office 19 here. 20 Thank you. I'd like to go back to 21 1994. I apologize for jumping around a little 22 bit. But in 1994 did you manage to get funding 23 for your project? 24 Yes, we did. Α.

1 Q. And who did that funding come 2 from? 3 From Deutsch Telecom. Α. Who is Deutsch Telecom? 4 5 Α. It is a large German 6 telecommunication company like AT&T in the 7 United States. Q. I'd like to direct you to PTX-17B. 8 9 There's a 17A and 17B. A is the German language 10 version and 17B is the translation to English. 11 And for us here we're going to refer to 17B, the 12 English. And I'm going to put it up on the 1.3 screen, that's the first page of the document. 14 What is this document? 15 This document is a milestone 16 report about the project that was funded. 17 Q. Were these reports you sent to the 18 subsidiary of Deutsch Telecom? 19 Yes, they were delivered to report 20 on the progress we made. 21 How substantial were these 22 documents? 23 They were the basis for the 24 funding to be released.

1 Were there a series of these Q. 2 milestone reports? 3 Yes, there were three to four Α. 4 typically depending on the duration of the 5 project, so every few months we would have such 6 a milestone report delivered. 7 0. If you look at the date on the 8 first page, and I don't know if you can see it, 9 but what is the date of this milestone report? 10 This milestone report covers the Α. 11 time from May '94 to the end of June '94. 12 Early in your work on the project? 13 Α. Yes, this is quite early milestone 14 report. 15 Now, you mentioned this morning 16 that you did some demonstrations and you used 17 the demonstrator for that. Do you recall that? 18 Α. Yes, I do. 19 Where do you recall doing the 20 demonstrations? Could you give us at least a few of those so we have some idea of the venues 21 22 for those? 23 Yeah. One was the International 24 Telecommunication Media Gathering in Kyoto,

1 Japan. And then there was, in Brussels, G7 2 Meeting and there was a SIGGRAPH and a few 3 others. 4 Q. During what period of time did you 5 do these demonstrations? With a demonstrator it was, the 6 7 first one was in Kyoto in 1994 and then the last 8 demonstration with the TerraVision system we 9 gave somewhere in 2000. 10 Q. And what was the general reaction 11 to these demonstrations that you did? 12 It was always great fun to be 1.3 there out with the TerraVision system, because 14 nobody had seen such a thing before anywhere and 15 so we were proud and people were happy. 16 yeah. So it was a very rewarding experience to 17 be out there. So I -- yeah, I remember it very 18 well. 19 Did you attend a conference called Q. 20 SIGGRAPH 95? 21 Yes, I did attend SIGGRAPH 95. Α. 22 Was the demonstrator used there? 23 Yes, we did use the demonstrator 24 there.

1 Q. Do you recall whether Art+Com 2 provided materials at the demonstration at 3 SIGGRAPH? I don't recall whether or whether 4 5 or not. 6 This morning counsel for Google Q. 7 used a slide that was Slide 29. Could we pull 8 that up? I'm sorry, it's slide -- I must have 9 switched them. Maybe it's Slide 28, the 10 timeline. No, the timeline. Yes, this is it. You were in the room in the courthouse? 11 12 Α. Yes. 13 In the courtroom when that was 14 displayed. At some point in time did you come 15 across SIGGRAPH 95 materials that were related 16 to Art+Com? 17 A. Yes, I did. 18 And approximately when was that? 19 When was the first time you saw those materials? 20 I remember seeing them a couple of 21 years ago. 22 And what did you do with those 23 materials when you saw them? 24 A. We submitted them to the US patent

1 office. 2 Would you, Mr. Lodge, pull up PTX Q. 3 1, which is the reissue patent, the '550 patent. 4 This is the '550 patent, the 5 patent that's in this litigation; correct? 6 Yes, this is the one. 7 Let's go to the first page. And 0. 8 you're one of the listed inventors; correct? 9 Α. Yes. 10 Let's go to the second page. Do 11 you understand this to be a listing of the prior 12 art considered by the patent office? 13 Α. Yes, this is the list of 14 publications that were submitted, most of them 15 to the patent office, yes. 16 Would you, Mr. Lodge, go to the 17 second column, and the second entry that starts 18 CD-ROM. Just the CD-ROM part. Are these the 19 materials you submitted to the patent office? 20 Α. Yes, these are the materials. 21 Did the patent office make any 22 rejections based on these materials? 23 No, they didn't make any 24 rejections.

1 Did the patent office issue the 2 patent after you submitted these materials? 3 Yes, the patent office did. Α. 4 I would like to go back to the 5 discussion of the development again. At some 6 point in time, was there another project for the 7 development of an actual product? 8 Can you repeat this question? 9 Q. Yes, I'm sorry. 10 At some point was there a project 11 to develop a product? 12 Yes. After the first project 13 phase with the demonstrator, and when we figure 14 out all the problems I described earlier, we 15 wanted to make a product based on all the 16 technology and experience that we had gathered. 17 I refer to you PTX 303D, which is 18 the English translation language of the 303A. 19 We put up the first page of it, I think it's 20 back one. I think there is a previous slide, 21 Mr. Lodge. 22 What is this document, Mr. Mayers? 23 This is my report of the second 24 TerraVision project that was about developing a

product, an actual product that had different users and could be sold.

- Q. Would you turn to page 7240 through 41 and I think we have a slide for that as well. Do you see on this page there is a reference to a presentation system and a reference to a production system. Do you see that?
 - A. Yes, I see that.
 - Q. What's the presentation system?
- A. The presentation system is the product we developed that would be used in showrooms, trade shows, museums and so on, and that would be using a device like the Earth Tracker, so it would be a real time system to directly interact with and fly around.
 - Q. What was the production system?
- A. The production system was not -had not to be a realtime system, but it was
 supposed to be used to do movie production for
 TV, weather reports and so on.
- Q. Was the software written for both of these systems?
 - A. Yes, they shared a lot of

components, but they had differences and different requirements. And also for the production system we could use cheaper hardware because it didn't have to be realtime.

- Q. Did you use all the solutions that you described earlier in writing the software for the production and presentation systems?
- A. It had all the solutions in it, but as far as I recall during the time when we actually deployed these products, the networks were still too slow and so we still kept using it without these capabilities, but we could have done that with the past network.
- Q. Was the software written to accomplish that even though you didn't hook it up to the networks?
 - A. Yes, it was.
- Q. I would like to refer you to PTX 236, and we'll put that up on the screen as well. What is PTX 236?
- A. This is a list of can exhibitors at ACM Conference gathering in 1997. The ACM is the Association For Computing Machinery,
 Association of Computer Scientists, and as that

was their 50th anniversary. It was founded in 1947. And they invited for the fifty years what they called the fifty most interesting projects or milestones of computing history. And we were very proud to be invited there.

- Q. Did you use your presentation system at that conference?
- A. As I remember and as the milestone report says, this was the first time we used the new system.
 - Q. What was the reaction to it?
 - A. As always, people really liked it.
- Q. Was there also a demonstration that you did on Wall Street?

A. Yes. In '97, actually we were commissioned to show the system on Wall Street on behalf of a Deutsche Telecom, they were going public, they were going to be listed on the stock exchange, so we were out there on Broad Street in front of the stock exchange with the huge LED display, and with a track ball even much larger than this one. I think it was like three times the size. And we were out there in the street showing the system.

1 What was the reaction to that? Q. 2 As always, we had crowds and 3 people, happy faces. 4 I believe you said this morning 5 that you continue to use this system until what, 2001, 2002. What was the time period? 6 7 Yes, I think until 2002, I quess, 8 yeah. 9 After that point in time, did you Q. 10 consider using the T-Vision again? 11 We did from time to time, but 12 hardware had changed at that time. The Silicon 13 Graphics machines, they were too expensive, so 14 we would have -- and software environments 15 changed, so we would have to put it on new 16 hardware. We considered it, but we actually 17 never did it. We supported it to Lenox in 2002, 18 but yeah, but this was not such a popular 19 platform then. 20 Were there any other reasons that 21 it didn't continue at that time having to do 22 with yourself and others? 23 Yeah, I mean, the other thing was 24 that I left Art+Com in 2000, and other

1 developers, too. I mean, I returned to Art+Com 2 two years later, but during that, the time, 3 yeah, that just was also no one left to continue 4 the development. 5 What computers did you use in this 6 system? 7 As I said, this system we were 8 talking about did only work on Silicon Graphics 9 computers. 10 Why Silicon Graphics computers? 11 They were at that time the only 12 computers that really could do fast three-three 1.3 computer graphics. PC's were not up to the 14 task. 15 Did you have communications with 16 people at ASGA, that is to say Art+Com and 17 people at SGI during the time that you were 18 developing the system? 19 Yes, so we did communicate with 20 them via E-mail. 21 Did you describe the general 22 nature of those communications? I'm not asking 23 you to give them in any detail? 24 A. Well, at some points we asked for

help to address some issues and problems we had, and also they on the other hand after they became aware of our system, they wanted to show it to their customers in their presentation facilities.

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- Q. Did your team meet with any specific SGI employees during that time?
- A. Yes, there were a number of SGI employees we met both in Germany and then later in the headquarters of Silicon Graphics or SGI.
 - Q. And who were some of those people?
- A. Most notable was Michael T. Jones who was the head of the Performer Group at Silicon Graphics back then.
- Q. At some point did you hear about a company named Keyhole?
- A. Yes. I came across Keyhole sometime after 2002, I guess. I saw they had a booth at the SIGGRAPH conference and I saw that they were doing something with earth visualization, but I didn't look closer because it looked like, very much like the stuff we had done six years ago, so I -- yeah, I didn't look closer.

1 At that time did you know that 2 Michael Jones was at Keyhole? 3 No, I had no idea. Α. 4 When did you find that out? 5 Α. It must have been in 2004, I 6 think, at the beginning of 2004 or no, 2005 7 Yeah, I think end of 2004 or 2005 a mavbe. 8 former colleague told me that in an e-mail. 9 Who was that colleague? Q. 10 Α. That was Steffen Meschkat. 11 Was he a former employee of Q. 12 Art+Com? 13 Yes, he was a former employee. 14 started to work as a student and then stayed 15 after he graduated and worked on the later T 16 Vision product development. 17 And at the time you exchanged 18 e-mail with him, where was he employed? What 19 was your understanding as to where he was 20 employed? 21 At this time he was working for 22 Google when he wrote me the e-mail. 23 Did you learn as part of that 24 where Michael Jones went from Keyhole?

1 Yes. He told that Michael Jones 2 was also at Google now. 3 Would you pull up on the screen 4 PTX-295B. And I refer you to 295B. This is an 5 English language translation of the German 6 version, which is 295A. Is this the e-mail that 7 you received? 8 Α. Yes. 9 Was this -- if you look at the Q. 10 yellow highlighted portion it indicates that 11 Google bought Keyhole. Do you see that? 12 Yes, I see that. 13 Q. Is this the first time you learned 14 that? 15 Yes, I think so. I hadn't heard about that before. 16 17 Q. Did you use the information in 18 this e-mail at some later point in time? 19 Yes. Knowing this information 20 that Michael Jones was at Google now made me to 21 reach out to him about a year later when we saw 22 an opportunity to make business with Google. 23 Why did you contact Mr. Jones? 24 What was the basic reason for making that

contact?

A. At that time we were thinking what to do with the TerraVision technology we had developed, what we could do with the patent now that PC's were fast enough, the networks were fast enough, and several companies were now producing mass products and so we liked what Google was doing most, so we thought or yeah, that Google would be the partner of choice to work with on such systems.

- Q. Did your previous knowledge of Mr. Jones play any role or not with respect to what you decided about reaching out to Google?
- A. Well, I thought he might remember me from the old times at Silicon Graphics and he was an engineer and I really liked the stuff that he was doing, so I thought a communication from engineer to engineer might make it easier to get things going.
- Q. I'd like to refer you to PTX-13.

 Put it up on the screen for you. What is -just briefly, what is PTX-13?
- A. This is an e-mail, the e-mail I was talking about when I reached out to Michael

1 T. Jones about cooperation and how to make use 2 of the patent. 3 In the first paragraph there's a 4 highlighted portion that said, refers to the 5 fact that you met about 10 years or so ago. 6 you see that? 7 Α. Yes. 8 Does that have to do with the SGI 9 Is that what you were talking about? 10 Yes, that was the SGI time. We Α. 11 met a couple of times at SIGGRAPH and the 12 Friends of Performers meeting and so then we visited him at the headquarters in Mountain View 13 14 where he had his offices. 15 And in the fourth paragraph, the 16 highlighted portion, what did you have in mind there? And again, just very briefly. 17 18 Yeah. I just wanted to know if 19 they were interested in licensing this patent. Was there an attachment to this 20 Ο. e-mail? 21 22 Yes, there were two attachments 23 and one was the patent itself and the other was 24 the presentation about the patent.

1 I'd like to refer you to PTX-122. 2 We'll put it up on the screen. It's also in 3 your notebook. What is PTX-122, is that the 4 presentation? 5 Α. That's the presentation. 6 I'd like to turn to Page 13 of the 7 presentation. That's a page that's entitled 8 Patent Exploitation. Do you see that? 9 A. Yes. 10 And you use the word offer several 11 times on that page under the licensing 12 opportunities. What were you trying to get 13 across here? 14 That we were willing to discuss 15 the patent with interested parties and maybe 16 then -- yeah, to at some point, to get to a 17 license agreement. 18 Q. Would you turn to the next page? 19 And we have a slide for that as well. This page 20 is also entitled Patent Exploitation. What was 21 your objective with respect to this particular 22 page in your presentation? 23 Yeah. It was that the purpose of 24 this presentation was to communicate that we

1 were, yeah, were reasonable people and wouldn't 2 rip off anyone. 3 Q. At that point in time, did you 4 have any experience negotiating patent licenses? 5 Α. No, I did not. 6 Did anyone at Art+Com, to your 7 knowledge? 8 No, not to my knowledge. 9 Do you see where it says typical Q. 10 licensing models? Do you see that? 11 Α. Yes. 12 What were you attempting to get 13 across with respect to your use of the word 14 typical? 15 Well, that that were examples I 16 heard about of licensing that happened in cases 17 of patent licensing. 18 Q. Did you have a view at that time 19 as to whether Google Earth would be a typical 20 product? 21 Probably not because I knew they Α. 22 were giving away to clients for free. So it was 23 not that typical at that time in this business.

Q. Further down you referred to

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1 patent related yearly revenue based license 2 costs. Do you see that? 3 Α. Yes. 4 What do you mean by patent related 5 yearly revenue and how might that be applied in 6 connection with this particular presentation to 7 Google? 8 I mean, for a free product it 9 would be difficult to agree on a revenue based 10 parts, so -- I mean, it would be like three 11 percent of nothing, so that probably wouldn't 12 apply in this case. 13 Q. Did you at that time have any idea 14 how you might find what you describe in that 15 last bullet point on that page? 16 No. We hoped that during 17 discussions when knowing more about what Google 18 had in mind we would get some understanding how 19 to make that business happen. 20 Mr. Mayer, what happened next 21 after you sent that E-mail to Mr. Jones? 22 Mr. Jones answered that he was 23 interested to get in touch. And finally he came 24 to visit us in Berlin in our offices.

1 Did Mr. Jones come by himself or 2 did he come with someone else? 3 At first he came by himself. 4 So he came to Berlin to have 5 discussions with you and others; is that 6 correct? 7 Α. Yes. 8 Approximately when did that occur? 9 That would have been in Α. 10 March/April 2000 --The E-mail is 2006. Would it have 11 Q. 12 been that same year? 13 Yeah, it was 2006. 14 What did you discuss during his 15 visit? And in answering that question, I just 16 -- I want to make sure you comply with what I 17 told you about some of the orders in this case. 18 A. We discussed our history. He told 19 what he did after we met the last time, so his 20 career at Silicon Graphics and how he founded 21 the other companies. And so he told us the 22 whole story. And we did show him what we were 23 doing or had done at that time. So we caught 24 up, yeah, long time not seeing each other.

1 And then also we discussed the 2 patent and the future projects, what we could do 3 together. 4 What did Mr. Jones say about his 5 interest in the patent? 6 Well, at some point he expressed 7 clearly that Google is interested in the patent. 8 And I asked why he is interested in the patent. 9 And he said well, there are two ways how to do 10 such a thing. There is the way that you 11 described in the patent, and there is the way 12 that we're doing it, and there is probably no 13 other way to do that, so if we have the patent, 14 then other companies will have -- it will be 15 harder for other companies to compete with 16 Google Earth. 17 Did you draw any conclusions from 18 that conversation? 19 Well, one conclusion was that he 20 was telling me that they were not using the 21 patented technology. 22 Were you ever visit by someone 23 else from Google named John Hanke? 24 Yes, John Hanke came a few weeks

1 after the visit of Mr. Jones. 2 Q. What was your understanding of who 3 John Hanke was? I understood that he was the 4 5 manager or businessman or maybe his boss at 6 Google. 7 Q. How long did you meet with Mr. Hanke? 8 9 I remember he was there one day, 10 for one day in our -- first in our offices and 11 then we had a long dinner together. 12 Q. Did Art+Com make any presentations 13 to Mr. Hanke at any of these meetings? 14 A. Yes. We also told Mr. Hanke what 15 we were doing, the projects at that time, and 16 the technology we had. 17 What was the purpose of that? 18 To explore opportunities of doing 19 things together. 20 We still -- we had to know how and 21 the system that could do more things than the 22 earth was doing. We had a lot of designers that 23 did really good work in user interaction 24 designed, so there is stuff we could improve

1 other Google products. And we had some product 2 ideas for products that Google wasn't exploring 3 in the presentation area, for example. So we 4 thought that there were really a lot of 5 opportunities to do things together. 6 Did Mr. Hanke express any opinions 7 to you about the presentations you made? 8 I think he liked what he saw. 9 least that's what he told us. And when he left, 10 I think everyone was happy, we thought, yeah, 11 there are so many things we can do, just let's 12 start. 13 After Mr. Hanke's visit, did 14 discussions with Google move forward? First it looked like that, but 15 16 then lawyers got involved. 17 What happened then? Then the focus of the discussions 18 19 moved away from making business or new project 20 together, but then it was mostly all about the 21 patent, discussing with patent lawyers. 22 How did you feel about that at the Q. 23 time? 24 Α. I didn't like it very much,

because that was not the -- where we wanted to go in the first place. I mean, the patent was I think a great thing in the package that we wanted to put together, but we preferred to do it with the new stuff.

- Q. Were there E-mail exchanges that followed that?
- A. Yes, there were a lot of phone conferences and E-mail exchanges about both the
- Q. I would like to refer you to one.

 I apologize for cutting you off. I think this

 will speed it up just a little bit. I would

 like to refer you to PTX 15. And put it up on

 the screen. This is probably a little hard to

 see on this page, so we'll probably break it up,

 but in general what is this? Is this an E-mail

 concerning the patent and the discussions?
- A. Yes, this is an E-mail that talks about a phone conference between Art+Com and Google we had summarizing what we had been talking about, and what the results were of the phone conference.
 - Q. Do you see two E-mails on this

1 page? 2 Yes. Α. 3 I'd like to put up a slide that 4 shows more clearly the e-mail that's at the 5 bottom of the page. Do you see that? Yes, I do. 6 Α. 7 And what -- it indicates in yellow Ο. 8 highlighting that this is a summary of a call. 9 Is this a summary of a call? 10 Yes, this is the summary of a call Α. 11 written by Patrick Paulish. 12 And what did you understand the 13 first bullet point to mean. It reads Google now 14 views Patent '987, which is now the '550 Patent 15 in this case. This is the earlier version of 16 it. Google now views Patent '987 as a quote, 17 nice to have patent, closed quote. What was 18 your understanding what they were saying? 19 That they were having -- the way 20 we read it was that they were not using our 21 patented technology and that they didn't need 22 the patent, so it would be just nice to have it. 23 Q. And in the second bullet point 24 which is also yellow highlighted, it says even

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1 if the patent would be a hundred percent air tight or at least meeting Google's comfort 2 3 level, there's a maximum price Google would pay. 4 What was your understanding of the first portion 5 of that second bullet point? Yeah, I mean, they were raising --6 7 Google's patent lawyers were raising a number of 8 issues regarding the patent. 9 And let's go to the e-mail at the Q. 10 top of the page. And I have a slide for you to 11 look at that makes it possible to view the 12 e-mail at the top. Do you see that e-mail? 13 Α. Yes, I do. 14 Who is Michelle? 15 Michelle Lee was a patent counsel, 16 I think, at Google. 17 And she's responding to Mr. 18 Paulish's e-mail here, is that it? 19 Yes, she responded to this e-mail 20 that it was a fair summary of what we had talked 21 about in the phone conference. 22 I'd like to turn to another e-mail 23 in this series of e-mails. I apologize for 24 having something in my throat. It's PTX-16.

And we have a slide that may make it easier to look at PTX-16. Let's put it up. Without going into the details of it just yet, what is PTX-16?

- A. It is another e-mail I wrote to Michael Jones basically reaching out for him to, asking for his support to get talks about doing projects together back on track and one idea to do that was that we might present what we were doing at Google to a larger number of people who might really make a decision on that because it seemed, yeah, that we weren't talking to anybody who could make decisions.
- Q. Here's a highlighted portion in the third paragraph. That says if it turns out that we can not agree on price now, it is very probable that we just wait and see and maybe let perform a reexamination of the patent to gain a better understanding of its potential value. Do you see that?
 - A. Yes, I do.
 - Q. What did you have in mind there?
- A. Google was raising all those issues about the patent, so we were really a bit unsure how the situation is. And we asked our

1 lawyers and they said well, probably unfounded, but you never know. So a way -- we thought a 2 3 way out of it would be to put the patent again 4 in front of an examiner and see what's the 5 position of the patent offices on that. 6 Q. And identity like to turn to 7 another e-mail exhibit, DTX-1071. And we'll put 8 that up on the screen as well. 9 Α. Yes. 10 I'd like to ask you about both of 11 the highlighted portions, but before we get into 12 the highlighted portions, could you just tell me, identify this document for me? 13 14 Yes, this is another e-mail I sent 15 to Michael Jones. 16 And this was in August of 2006? 17 Α. Yes. 18 Q. A few weeks after the other one? 19 Α. Yes. 20 In the first highlighted part, 21 what did you have in mind there? 22 Well, at that time we felt like

making business together, so we thought okay,

the patent seems to somehow, to be in the way of

23

24

1 under the circumstances that we're in, maybe we 2 can get just this finally off the table and 3 yeah, and we were a bit unsure really how to 4 evaluate now with all these issues and we would 5 have to put a lot of work into it, so --6 Q. And in that second highlighted 7 part, you refer to a kind of package deal would 8 probably -- would be probably a preferable solution for both sides. Do you see that? 9 10 Yes, I do. Α. 11 What did you have in mind there? 12 As I already said, there were so 13 many opportunities to go forward and so probably 14 we thought and we understood that Google had 15 also proposed this, that it would be really a 16 better thing to work together and to resolve the 17 patent issue or to put the patent into the 18 packet of a larger package. 19 Did you have a view at that time 20 as to whether you would have done a deal that 21 was not inclusive of a business deal? 22 It would not have been my decision 23 to do that, but I guess not. I think not.

Q. And you say that on the basis of

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1 what? You said it was not your decision. 2 That's what I'm getting at. 3 Okay. I would have made a Α. 4 recommendation, but I was not the CEO of 5 Art+Com. After this e-mail, what in general 6 7 happened next? 8 Things -- yeah, we, as the 9 discussions with Google went nowhere, we did 10 what we announced before, we put the patent 11 again in front of the patent office and yeah, 12 submitted all the documents we had and applied 13 for a reissue of the patent. 14 Did you submit all the documents 15 that Google gave you during the course of these 16 discussions to the patent office? 17 Yes, we submitted everything we 18 had gathered up to that time that might be 19 remotely related to the patent. 20 I'd like to go to Slide 28 of 21 Google's opening. This refers to SRI 22 International and SRI's TerraVision system. 23 you submit to the patent office documents 24 concerning SRI's TerraVision that Google had

1 identified to you? 2 Yes, Google brought these 3 documents to our attention and we submitted them 4 to the patent office. 5 Did the patent office reject any 6 claims over this prior art? 7 No, they didn't. 8 Did the patent office issue the Q. 9 patent? 10 Yes, they issued the patent. Α. 11 Now, I'd like to turn to another Q. 12 slide that Google used in its opening. It's 13 Slide 23. You were here for the opening, I 14 think you told me that before? 15 Yes. 16 So you saw this slide when it came 17 up? 18 Α. Yes, I saw it. 19 I'd like to ask you about the 20 first paragraph first. And a portion of this 21 sentence was highlighted. The portion that was 22 highlighted is you succeeded where we failed. 23 Do you see that? 24 Yes, I see that. Α.

1 And the rest of the sentence after 2 the colon has two portions to it. I'll read the 3 first part and I'll ask you what you were saying 4 in this letter to Mr. Jones. Not only have you 5 managed to create a model of the whole earth of 6 unheard size. What were you referring to there? 7 Well, they managed to acquire 8 really a lot of data at the time. No one had 9 more satellite data put into one system before, 10 so they had the capitol to, yeah, just put a lot 11 of data in that system. 12 Was data expensive? 13 It was expensive and it was 14 difficult to make the deals on the data, so it 15 was a definitely an accomplishment. 16 And the second part of that 17 sentence reads you have finally found a way how 18 to bring it to the people, and I feel very good 19 about it. What did you mean by that statement? 20 Yes, I -- I meant that now with 21 our and capitol of Google that they could afford 22 it to give it away for free, so many people 23 could use it, so I liked that. 24 Q. So let's turn to the second

portion of this slide, and it is also yellow highlighted in part. Let's read that part and I'll ask you what you meant there. First part, you figured out most of the same things on your own. What did you mean by that?

- A. What this was, this letter was written after Michael Jones had visited us in Berlin and as I already told, he said they had their way and our way, so I referred from that that they figured out things so I was basically referring to that I believed what he told me when he visited us, so that was the thing. And also, I mean, since our patent eight, nine years have passed, so it would have also been quite enough time to figure these things out.
- Q. And the second part that was yellow highlighted is, and you had a lot of new ideas we never thought about. What did you mean by that?
- A. I really liked some parts of the user interface, how to use the mouse to fly around and to navigate. And the search functionality they added and some ways to add the data to it, so there were, yeah, some things

1 I liked about the system. 2 I would like to go to Google's 3 opening slide 33. You saw this when it was put 4 up during the openings? 5 Yes, I saw that. Α. This is a reference to -- strike 6 Ο. 7 that. 8 In the top of the slide it says 9 that ACI knew about SRI TerraVision in 1995. Do 10 you see that? 11 Α. Yes. Is that the SRI TerraVision 12 13 materials that you submitted to the patent 14 office that we talked about earlier? 15 Yes, it is. 16 And in this quote from the E-mail 17 where it says same name, we already talked about 18 same name; correct, same goals, and is based on 19 the same technology. Do you see that? 20 Α. Yes. 21 Did that turn out to be true? 22 Parts of it, other parts not. Α. 23 Q. Can you explain? 24 Α. Well, this, I have to say this --

I wrote this E-mail I think in early '95 as a response to an E-mail from Mr. Leclerc to me.

And I have never seen the SRI TerraVision in action, so I knew only a bit what was on the internet. And the headlines sounded really interesting. They were doing terrain visualization. They were using SGI computers.

And they I think were also funded by some telecommunication companies, so everything from the outside looked a bit similar at that time.

- Q. What did you discover later?
- A. When I went to Siggraph when we showed our TerraVision, T-Vision, SRI was there as well. I was excited about maybe we can get some new ideas, solutions from them. But when I saw what they were showing at Siggraph, I was disappointed and after that no longer interested in working with them because they seemed way ahead -- way -- we seemed to be way ahead of what they were doing. So from that time on, yeah, I wasn't interested in seeing what they were doing or talking to them.
- Q. I'll represent to you that your first reissue patent issued on July 13th, 2010.

1 My question is, did you initiate discussions 2 with Google after you received that reissue 3 patent? 4 Yes, we -- after the reissue of 5 the patent, we thought Google might like to hear 6 that other concerns about the patent history and 7 the prior art were not shared by the patent 8 examiner. 9 I would like to refer you to PTX 10 324, and we'll put it up on the screen. Is this 11 an E-mail exchange between you and Google? Yes. I wrote an E-mail to all the 12 13 people we had been discussing in 2006 to let 14 them know A, there are no concerns any longer, 15 maybe you're interested in the patent now. 16 I would like to break this up into 17 two slides so we can see the E-mails that are on 18 the first page. This is I think the earliest of 19 the two E-mails. It's at the bottom of the 20 page. Is this an E-mail you sent? 21 Yes, I sent this E-mail. 22 And it appears as though you sent 23 the reissue of the patent to them; is that 24 correct?

1 A. Yes, I did, I attached the 2 reissue. 3 Q. Is this your attempt to initiate 4 further discussions with Google? 5 Yes, that was the attempt to start 6 to talk again. 7 Who were you writing to at this 8 point in time? 9 As I said, the people that were 10 involved in the discussions in 2006, Michael 11 Jones, Michelle Lee, John Hanke. 12 Q. Did Michael Jones respond to your 1.3 E-mail?14 No, none of the people from the 15 former discussion group responded, but Mr. Tim 16 Porter responded instead. 17 Let's look at the next slide which 18 is Mr. Porter's response. What was your 19 understanding during the course of discussions with Google in 2010 as to who Mr. Porter was? 20 21 His signature, the patent counsel 22 lawyer working for Google. 23 Q. Did you have discussions and 24 E-mail exchanges after this E-mail?

1 Yes, we had a number of phone 2 conferences and E-mail exchanges over the course 3 of a few months. 4 Were you able to get into business 5 discussions with Google at this point? No, we didn't. 6 Α. 7 At some point did you decide to do Ο. 8 your own investigation of any of the issues that 9 were being discussed? I mean, the situation I was in, it 10 11 was that Google hasn't been right about the 12 issues the patent had, like the prosecution 13 history and the prior art, so I figured maybe 14 they aren't right about the infringement issue 15 that they were not using our patents, so I 16 started to look into that question. 17 You're not a patent lawyer. 18 didn't remember you saying you were a patent lawyer; is that correct? 19 20 No, I'm not a patent lawyer. 21 What did you in general do to try Ο. 22 to investigate this? 23 Well, for the first time I had a 24 closer look at how Google Earth actually works,

1 so I looked at what's going on on the screen, 2 and I captured the network traffic and see how 3 it works. I mean, as you said, I'm not a 4 lawyer, but what I saw was enough to get the 5 impression that they were, in fact, using the 6 technology. And I remember being a bit angry 7 about that. But this led me to refer the whole 8 9 thing then to some patent experts who could --10 who would look deeper into it. 11 Did there come a point where you 12 decided to make a proposal to Google? And I'm 13 just asking for a yes are no. 14 Α. Yes. 15 I would like to pull up PTX 123. 16 Is this the proposal you made to Google? 17 Yes, this is the proposal. 18 And what did you propose? I think 19 it's yellow highlighted here. So the first 20 yellow highlighting says the fair value for the 21 patent, so this was your view of the fair value. 22 Can you tell the jury what you thought was the 23 fair value at that point in time? 24 Yeah. A fair value at that time

1 we thought would be in the order of \$1 per user 2 or for every time it was used in the order of 3 ten cents. Were there discussions that 4 5 followed this E-mail that you sent? 6 No, there were only one final 7 phone conference where Google told us that they 8 were no longer interested in licensing the 9 patent or talking. 10 After these discussions, did you 11 file another reissue application? Yes. We did file another reissue 12 13 application, yes. 14 Q. And during the filing of this 15 reissue application, did you disclose the 16 additional prior art that Google had given to 17 you during the course of the 2010 discussion? 18 MR. SNYDER: Objection. Leading. 19 MR. PARTRIDGE: I'll rephrase, 20 Your Honor. 21 BY MR. PARTRIDGE: 22 What did you submit to the patent 23 office during the course of the second reissue 24 application?

1	A. During in the course of those
2	discussions with Tim Porter, he sent me a number
3	of documents and said what I thought about this
4	being prior art and I looked into these
5	documents, but finally so we were made aware
6	of the documents and when we applied for reissue
7	we also submitted these documents to the patent
8	office.
9	Q. Did the patent office make any
10	rejections over these documents?
11	A. No, they did not make any
12	rejections, they reissued the patent again.
13	Q. Is that the patent that is then
14	involved in this litigation?
15	A. Yes, this is the patent.
16	MR. PARTRIDGE: Pass the witness,
17	Your Honor.
18	THE COURT: Does Ms. Weisner have
19	a chair?
20	MR. PARTRIDGE: Yes, we provided
21	one for her, Your Honor.
22	THE COURT: She looked a little
23	uncomfortable.
24	THE INTERPRETER: I'm here, just

1	standing.
2	MR. SNYDER: We have exhibits that
3	may be used during the cross-examination. May I
4	approach the witness, Your Honor?
5	THE COURT: Yes.
6	MR. SNYDER: Thank you.
7	May I proceed, Your Honor.
8	THE COURT: Yes.
9	MR. SNYDER: Thank you.
10	BY MR. SNYDER:
11	Q. Good afternoon, Mr. Mayer.
12	A. Good afternoon.
13	Q. You mentioned you were a member of
14	the Berlin State Parliament?
15	A. Yes.
16	Q. What party are you a member of?
17	A. The Pirate Party.
18	Q. The Pirate Party?
19	A. Yes, right.
20	Q. And the Pirate Party is committed
21	to protecting the public domain of intellectual
22	property; is that right?
23	A. Yes.
24	Q. And it believes in enhancing the

1 public domain for enhancing a number of 2 materials that are in the public domain? 3 Yes, it does. Α. 4 And the Pirate Party is against 5 taking materials that are in the public domain 6 and making them proprietary or under the control 7 of individuals? 8 Could you repeat that question? 9 I'm sorry. The Pirate Party is Q. 10 committed to making sure the information that is 11 in the public domain does not become private 12 property? 13 You could say that, yes. 14 Everybody -- nobody would want that. 15 Now, Mr. Mayer, you understand 16 that this case is about claims of a patent, 17 correct? 18 A. Yes. It's a kind of intellectual 19 20 property? 21 Α. Yes, I do. 22 Something that is not in the Q. 23 public domain? 24 Α. Yes.

1 I want to ask you a little bit 2 about what those -- what you think you invented. 3 Your lawyer didn't show you any of the patent 4 language during your examination, so I want to 5 make sure that everybody understands. 6 patent, the '550 Patent is in the general area 7 of visualizing geographic information, correct? 8 I think so, yes. Α. 9 You didn't invent the field of Q. 10 visualizing geographic information, did you? 11 Α. No. 12 0. That's existed for a long time? 13 Α. Yes. 14 People have been displaying visual 15 information even using computers for a long 16 time, haven't they? 17 A. Yes, they have. 18 Q. And before you filed for your 19 patent application in 1995, people had been 20 using computers to visualize geographic 21 information? 22 Yes, I think I said that already 23 in my testimony, yeah. 24 Q. One of the things, in fact, you

1 even disclosed in the patent application, that 2 there were different ways of using computers to 3 visualize geographic information that were 4 already known? 5 Α. I think I didn't get that. 6 Q. Sure. In your patent, you 7 identify types of or ways of using computers to 8 visualize geographic information? 9 Α. You can say that, yes. 10 One of them is the paint box? 11 Α. There were some references to a 12 paint box, I guess, yes. 13 You did not invent the paint box? 14 Α. No. 15 But paint boxes were a way of 16 visualizing geographic information that came 17 before your patent application? 18 There were systems, yeah, there 19 were of course computer graphic systems that you 20 could visualize geographic data with. 21 Another kind of computer system 0. 22 used to visualize geographic data were flight 23 simulators, right? 24 There were flight simulators at

1 that time, they existed, yes. 2 And they existed before you filed 3 for your patent application? 4 Yes, there were flight simulators. 5 You didn't invent flight simulators, did you? 6 7 No, we didn't claim that either. 8 And flight simulators would allow Q. 9 people to fly around in space and move from one 10 place to another? 11 They were a bit restricted. I've Α. 12 never seen a flight simulator at that time that 13 you could use to fly into space or that you 14 could fly down. You could -- flight simulators 15 were basically for simulating flying an 16 airplane, which had several restrictions, which 17 made it much easier to do a flight simulator. 18 We had more a kind of Superman or UFO simulator, 19 if you like that. 20 But flight simulators existed 21 before your patent, correct? 22 Yes, they did. Α. 23 Another kind of computer system Q. 24 for visualizing geographic information were

1 electronic navigation systems, right? 2 There were electronic navigation 3 systems. And there were electronic 4 Q. 5 navigation systems before you applied for your 6 patent in 1995? 7 Yes, I think so. You didn't invent electronic 8 Ο. 9 navigation systems? 10 Α. No. 11 Now, electronic navigation Q. 12 systems, they have a field of view, correct? 13 Α. There is a map, yes, and they show 14 you a part of the map, so they would have a 15 field of view, but I -- but it wouldn't be typically called a field of view in 2D. 16 17 All computer navigation systems or 18 all computer geographic visualization systems 19 have to have some kind of field of view, don't 20 they? 21 Yes, they do. Α. 22 You didn't invent the idea of a Q. 23 field of view? 24 Α. No.

1 O. Field of view existed as a 2 computer concept in the context of visualizing 3 geographic information before you applied for 4 your patent in December of 1995? 5 Α. Yes, you are right. Now, the patent claim, Claim #1 in 6 Q. 7 this case requires using a computer. Do you recall that? 8 9 Α. Yes. 10 You did not invent a special kind 11 of computer to run the method that's described 12 in your patent, did you? 13 Α. No. As I already said, we were 14 using computers manufactured by Silicon Graphics 15 that we did not invent. It was Silicon Graphic's computer 16 17 called the Onyx? 18 A. Yes. 19 And anybody, if they had the 20 resources, could buy an Onyx computer, right? 21 Α. Yes. 22 The patent doesn't require any 23 special kind of computer for any of its methods? 24 It needs to have some special

1 capabilities, but in general, I would agree. 2 Q. And the special capabilities 3 you're referring to aren't ones that you 4 created, right? 5 Α. No, we did not create this 6 computer. 7 Q. Now, you're familiar with the 8 concept of a kind of computer called a server? 9 Yes, of course. Α. 10 A server stores information to be Q. 11 used by other computers? 12 Α. That is right. 13 Ο. You didn't invent the idea of a 14 server, did you? 15 Α. No. 16 Servers existed before you applied 17 for the patent in December of 1995? 18 Α. They existed, yes. 19 Now, servers share information 20 over a computer network, correct, or they can? Yes, it does. 21 Α. 22 You didn't invent the idea of a Q. 23 computer network, did you? 24 A. No, networks already existed at

1 that time. 2 You didn't invent the idea of 3 requesting information over a network? 4 Not the general idea. 5 You didn't -- the patent doesn't 6 describe any particular or new way of requesting 7 information over a network, does it? 8 I don't agree with that. I don't 9 agree with you on that. I think it's on the 10 opposite, it does describe a new way how to 11 access the server. 12 Q. Okay. Let me try and explore that 13 a little bit. You did not invent the idea of 14 having multiple computers store information, did 15 you? 16 No, of course not. 17 And there were multiple computers 18 that shared information before you applied in 19 December of 1995 for your patent? 20 Α. There were networks of computers 21 and they could share data. One computer could 22 access data on another computer. 23 Q. And they could do that before you 24 applied for your patent in December of '95?

1 Yes. Α. 2 Q. Now, the idea of storing 3 geographic information on a computer existed before December of 1995, didn't it? 4 5 A. Yes, it did. I think I made that 6 hopefully clear already. 7 Q. Now, you're familiar with -- you 8 know what a database is, don't you, Mr. Mayer? 9 Yes, I know what a database is. 10 Ο. You didn't invent the database? 11 Α. No, we did not invent the 12 database. 13 Are you familiar with the term 14 distributed database? 15 I'm familiar with the term. And a distributed database means 16 17 that it is stored over several locations? 18 A. A distributed database typically 19 doesn't have to be necessarily different 20 locations, but typically it's used when data is 21 distributed to several computers. 22 Q. And distributed databases with 23 information spread over several computers 24 existed before you applied for your patent in

1 December of 1995? I think so. There weren't 2 3 products I was aware of, but the idea of having 4 a distributed, or distributed databases were a 5 topic of discussion, yes. MR. SNYDER: Could you bring up 6 7 Plaintiff's Exhibit 1, and turn, please, to 8 claim 14. BY MR. SNYDER: 9 10 Your lawyer, Mr. Mayer, didn't 11 show you any of the claim language, in fact, I 12 don't think that they have shown the jury any of 13 the claim language yet. So I just want to show 14 you a couple of things that perhaps help orient 15 our question. Claim 14 is now up on the screen. 16 Do you understand this is one of the claims 17 that's asserted in this case? 18 Probably, but I don't have every 19 word of this claim in my mind. But if you say 20 so. 21 I'll represent to you that claim 22 14 is one of the claims that's asserted. At the 23 end -- the claim says the method of pictorial 24 representation defined in claim one, wherein the

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1
       step F comprises dividing each of the one or
 2
       more sections using a model of the quadrant
 3
       tree.
 4
                     MR. PARTRIDGE: Objection, Your
 5
       Honor, 602, 403. And would you mind having a
 6
       side-bar.
7
                     MR. SNYDER: I'll withdraw the
8
       question, Your Honor.
      BY MR. SNYDER:
9
10
                 Q. Mr. Mayer, do you know what a quad
       tree is?
11
12
                 Α.
                    Yes, I do.
13
                 Q.
                     You didn't invent the quad tree,
14
       did you?
15
                     No, I didn't, but I met the
16
       inventor of the quad tree.
17
                 Q. Who is the inventor of the quad
18
       tree?
                     I think his name is Hans Summitt
19
20
       or something like that. I met him twice.
21
                    And quad tree is a pretty
22
       important thing in computer science; correct?
23
                     It is now used for a lot of
24
       purposes, yes.
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1 The quad tree is used to organize 2 -- one way of organizing information? 3 It is one -- it is a so-called Α. 4 spacial data structure to organize data, yes. 5 Mr. Mayer, as you said, you didn't 6 invent the quad tree; right? 7 No, I didn't. Α. 8 It was invented and disclosed to 9 the world before you applied for your patent in 10 December of 1995; right? 11 Α. Yes. 12 Q. And before December of 1995, 13 people used quad trees to store geographic 14 information; correct? 15 Maybe, probably. Quad tree was 16 used. But there are a lot of ways how to use a 17 quad tree, so what or to make out of it. And it 18 was not, I would say not a typical use of the 19 quad tree that we had because the inventor of 20 the quad tree when we talked about him, what we 21 had done, he was surprised, he didn't think that 22 what we were doing with the quad tree was 23 something he anticipated. 24 Mr. Mayer, my question, Mr. Mayer, Q.

1 was whether people that used quad trees to store 2 geographic information before you applied for 3 your patent? 4 Α. Probably, yes. But I cannot 5 confirm that definitely. 6 Q. Trees, a quad tree is one kind of 7 data structure for storing information; right? 8 Α. Yes. 9 There are other kinds of tree Q. 10 structures for storing information? 11 Α. There is an endless number of data 12 structures. 13 And there are potentially endless 14 number of tree related data structures; correct? 15 Yes. You didn't invent the idea of 16 17 organizing data in the form of a tree, did you? 18 A. No. 19 That existed long before you 20 applied for your patent in December of 1995? 21 Α. Yes. 22 MR. SNYDER: Could you show us 23 claim three of the patent. 24 BY MR. SNYDER:

1 This claim says the method of 2 pictorial representation defined in claim two 3 further including determining the data and/or the coordinates of the data in terms of a new 4 5 coordinate system. Do you see that, Mr. Mayer? I see that. 6 Α. 7 Mr. Mayer, I just want to use that 0. 8 to help orient our question. You're familiar 9 with the idea of a coordinate system; correct? 10 A. Yes. 11 People have been using coordinate 12 systems for hundreds of years, haven't they? 13 Α. Of course. 14 You didn't invent the idea of a 15 coordinate system? 16 Α. No. 17 They existed long before you 18 applied for your patent in December of 1995? 19 Α. Yes. 20 Q. You also didn't invent the idea of 21 converting one coordinate system into another 22 coordinate system, did you? 23 Α. No. 24 People have been doing that for Q.

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1
       probably about as long as there have been
 2
       coordinate systems; right?
 3
                    Yes, that's right.
                 Α.
 4
                     Something that existed long before
 5
       you applied for your patent in December of 1995;
 6
       right?
 7
                 Α.
                    Yes.
8
                     Now, Mr. Mayer, you also are
9
       familiar with something called a polygonal grid
10
       model.
11
                     I think it is not such a widely
12
       used term, but in general, yes, it's -- I know
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       what it is, yeah.
14
                     MR. SNYDER: Can you bring up
15
       claim 28.
      BY MR. SNYDER:
16
17
                    Mr. Mayer, claim 28, I will read
18
       it for us, the method of pictorial
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       representation defined in claim one wherein the
20
       steps E and F further include representing the
21
       data with a polygonal grid model?
22
                 Α.
                     Yes.
23
                     You didn't invent the idea of a
24
       polygonal grid model, did you?
```

1 Α. No. 2 Polygonal grid models existed long 3 before you applied for your patent in December 4 of 1995? 5 Probably. I don't know how long, 6 but yeah, I think I have seen polygonal grid 7 models before, yes. 8 Q. Mr. Mayer, you mentioned during 9 your direct testimony that you had done some 10 experiments, and I believe you said that math 11 was right, but your assumptions were too 12 conservative. Do you recall that? 13 A. Yes. 14 I believe your testimony was that 15 the system ran much, much faster, maybe fifty 16 times faster than you expected? 17 Α. Yes. 18 Q. When was that? 19 Α. When? 20 Yes, when? Q. 21 When? That was right at the Α. 22 beginning when we started getting the 23 TerraVision system developed. 24 Q. And approximately what year was

1 that? 2 That would have been in '94. Α. 3 In 1994? Q. 4 Α. Yes. 5 You mentioned, you also mentioned 6 during your direct testimony that you applied 7 for a patent in Germany? 8 Α. Yes, we did. 9 And you put everything that you Q. 10 knew into that patent application; correct? 11 Α. Yes. 12 And that's the patent that you 13 applied for in December of 1995? 14 A. Yes. 15 That patent application was 16 rejected, wasn't it, Mr. Mayer? 17 Yes, it was, like every patent 18 application typically. 19 So that application, the 20 application that you were referring to never 21 became a patent in Germany; correct? 22 Right. Α. 23 Mr. Mayer, you also showed us what 24 you called the Earth Tracker, the big ball.

1 never got a patent on Earth Tracker, did you? 2 Α. No. 3 The Earth Tracker and the Earth 4 Tracker ball isn't something that's part of the 5 patent that's at issue in this case, is it? 6 A. No, it's not needed to perform 7 what's in the patent. 8 So you don't need to use that ball 9 for any part of the claims that are at issue in 10 this case? 11 It is an input device and you can 12 use other input devices, so, no. 13 So whether or not somebody uses Q. 14 the Earth Tracker ball, that just doesn't matter 15 for the patent claims; correct? 16 Α. Right. 17 Q. The plaintiff in this case is a 18 company called Art+Com Innovation Pool? 19 Α. Yes. 20 Q. We have been calling that ACI? 21 Α. Yes. 22 And ACI is a different company Q. 23 than Art+Com; correct? 24 A. Yes.

1 Art+Com still exist? Q. 2 Α. Yes. 3 It exist as a separate company? 4 Α. Yes. They are separate companies. 5 ACI, the Plaintiff in this case, Q. 6 was formed in 2002? 7 Α. Yes, it was. 8 Q. And when it was formed, its 9 purposes was to develop software? 10 A. Yes. 11 But about a year after ACI started 12 in 2002 it stopped trying to develop software, 13 right? 14 I don't know, but probably yes. 15 The CEO of ACI is somebody who 16 would know the answer to that, right? 17 Α. Yes. 18 And if he said that ACI stopped 19 developing software about a year after it was 20 formed, you'd believe him, wouldn't you? 21 Yes, I would. Α. 22 Now, ACI never released any Q. 23 software, did it? 24 Α. I don't know.

1 Since it was founded in 2002, ACI 2 has never had a product, has it? 3 I don't know. Α. It's never had a customer; is that 4 5 right? As I said, I don't know. 6 Α. 7 ACI has never had any employees, Ο. 8 has it? 9 I would doubt that, but I'm not 10 the person to ask that, because yeah, I'm not 11 operationally involved in ACI. 12 Would the CEO be the right person 13 to ask? 14 A. Yes. 15 Now, ACI has never sold any 16 products that implemented the '550 Patent, the 17 patent that's at issue in this case, had it? 18 Α. Not to my knowledge. 19 And Art+Com, the company that you 20 worked for when you were developing the T vision 21 system, it never released any products that 22 implemented the '550 Patent either, did it? 23 I wouldn't say it like that. 24 Well, let me ask you this, Mr. Q.

1 Mayer. Did Art+Com ever sell any products to 2 any customers that implemented the patent and 3 practiced the methods that are described in the 4 patent at issue in this case? 5 Well, we -- we sold services based 6 on the product, on the patent, and we had some 7 systems that we loaned or rented out, but it was 8 not something you could download from the 9 internet or put on a CD.

- Q. The patents that are at issue, the claims that are at issue in this case are method claims. Do you understand that?
 - A. Yes.

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- Q. You have to perform the steps of the method to practice the claim?
- A. Yes. I mean, I'm not really an expert in U.S. patent law, but if you say so, it might be.
- Q. Did Art+Com ever sell a product to any customers that practiced the method, the steps that are described in the asserted claims of the '550 Patent?
- A. We developed such a system that was capable of that, and we actually sold part

1 of the system, for example, to German space 2 agency, German NASA where it was used to process 3 data for a joint German shuttle mission. 4 And that was the only customer 5 that Art+Com ever had, isn't it, for that 6 system? 7 Probably there were a couple more. 8 It was used to plan the Exploit 2000 exhibition. 9 I can't remember how the business terms were for 10 that, but it was I remember the system was used 11 for planning purposes for two years outside of 12 Art+Com. So I was -- I would say it was a sale. 13 0. If the CEO said that there weren't 14 sales of any systems, would he be wrong? 15 It depends on how you see that, 16 but --17 ACI has never received any Q. 18 licensing revenue for the '550 Patent, has it? 19 I cannot judge that, if it was the 20 case. I don't know. 21 Well, you contacted Google for the first time in 2006, correct? 22 23 Α. Yes. 24 That was about 10 years ago? Q.

1 Yes. Α. 2 Q. And Google hasn't paid ACI any 3 licensing revenue for the '550 Patent, has it? 4 No, they haven't. 5 And no other company has paid ACI 6 any licensing revenue for the '550 Patent 7 either, correct? 8 Α. Not that I recall. 9 So in those entire 10 years, Q. 10 there's not a single company in the world that 11 has paid ACI a penny for the '550 Patent; is 12 that right? 13 Α. Probably. 14 Now, when ACI was first formed in 15 2002, it was completely owned by Art+Com, right? 16 Α. Yes, it was. 17 And then it sold shares to Q. 18 certain, to a variety of different people? 19 I think, yes, it was -- it was that as far as I remember, the Art+Com 20 21 shareholders could get shares of this 22 subsidiary. 23 And you're one of the people who 24 purchased shares in ACI, correct?

1 Α. Yes. 2 Q. And you're now a part owner of the 3 Plaintiff, ACI, correct? 4 I have a stake in ACI, yes. 5 Now, let's switch gears a little 6 bit, Mr. Mayer, and talk about some of the 7 communications that you've had with Google. 8 first contacted Google and in particular Michael 9 Jones about the '550 Patent in early 2006, 10 right? 11 A. Right. 12 Q. And you know that Google Earth 13 originated from a product called Earth Viewer, 14 correct? 15 I don't recall the name of the 16 product, but I knew that -- I knew about 17 Keyhole. I think we talked about that. 18 Q. I'll use the name Keyhole, Mr. 19 Mayer. I wasn't trying to be confusing. You 20 know that Mr. Jones was involved with Keyhole, 21 right? 22 A. Yes, I learned that from the 23 e-mail we've seen. 24 Q. And he was one of the people who

1 was involved in creating the product that later 2 was purchased by Google and turned into Google 3 Earth, right? 4 Α. Yes. 5 Q. You didn't contact anybody at Keyhole about the '550 patent, did you? 6 7 I didn't because I didn't know 8 that they -- I didn't know much about what they 9 were doing. As I said, I saw them once at 10 Siggraph, they were handing out CD-ROMs. It was 11 not a big deal, no reason for contacting them. 12 You saw them at Siggraph in 2002? 13 Α. Yes. 14 And they were demonstrating their 15 product? 16 They were demonstrating a product, Α. 17 yes. 18 Q. This was the product that Google 19 purchased and eventually was transformed into 20 Google Earth; correct? That's what I learned later. 21 22 When you saw it in 2002, you Q. 23 didn't think it was a big deal? 24 It didn't look like much. As I

1 said, it looked basically like it could do what 2 our demonstrator could do, and so it was not a 3 big issue. 4 You didn't contact Keyhole about 5 the '550 patent after you saw that demo at Siggraph 2002, did you? 6 7 A. No, I didn't think they were using 8 the patented technology, so there could have 9 been no reason for that. 10 When you first reached out to 11 Mr. Jones when at Google in 2006, you did that 12 by E-mail; right? 13 Α. Yes, I did. 14 You sent him a copy of the patent? 15 Yes. 16 And you also sent him some other 17 presentation materials? 18 I did. I think we have seen them. 19 And in that document you mentioned 20 the idea of nonexclusive licensing? 21 I did that as an example of what I 22 have heard could be done, yes. 23 Q. And your suggestion, your proposal 24 was licensing one to three percent of the

1 patent-related yearly revenue; is that right? 2 That was in this document, and I 3 think as I've already earlier explained, this 4 would not have been something that would have 5 applied to Google. And the presentation, this part was not specific, not something that was a 6 7 specific offer to Google, but it was a general 8 example. 9 MR. SNYDER: Could you bring up 10 PTX 13. Blow it up a little bit so it's a 11 little bit easier for everyone to read. BY MR. SNYDER: 12 13 This is the E-mail that you sent 14 to Mr. Jones? 15 Yes, this is the E-mail. I think 16 we have seen it already, too. 17 And you want to see if Google is 18 interested in the '550 patent; correct? 19 Yes, that was the basic question. 20 If you could blow up the fourth 21 paragraph that starts attached you find. You 22 ended that paragraph by saying I would also 23 prefer to see the patent at Google than in the 24 hands of anyone else?

1 Right. You didn't say that Google infringed the '550 patent? 2 3 Α. No. 4 Because at the time you didn't 5 think that Google infringed the '550; correct? 6 Α. That's time we had not made up our 7 minds on whether they would or would not. 8 thought that whoever was aware of the patent and 9 might come -- might look at it and determine 10 himself if he is using the patent or not. If 11 he's using the patent, they better apply for a 12 license, otherwise they might get in trouble. 13 That's what we thought at that time. 14 You understood, didn't you, 15 Mr. Mayer, that Google did not infringe the

Q. You understood, didn't you,

Mr. Mayer, that Google did not infringe the

patent -- your understanding was that Google did

not infringe the patent; isn't that right?

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A. Not at the time that I wrote this E-mail. I made my mind up a little bit when I talked to Michael T. Jones and he said that they don't, I decided to believe him that he doesn't, because I thought if he would not be truthful on that matter, we would get into trouble and find ourselves in court one day.

1	MR. SNYDER: Mr. Inge, could you
2	bring up Plaintiff's Exhibit 122. And go to
3	page 14, production 1094. I believe this is the
4	page that your attorney showed you, Mr. Mayer.
5	And in particular the paragraph that refers to
6	the nonexclusive license?
7	A. Yes.
8	Q. Now, I believe you testified
9	earlier that Google was giving away a product
10	called Google Earth for free at the time; right?
11	A. Yes.
12	Q. But Google was also selling
13	different versions of Google Earth when you sent
14	this E-mail in 2006; correct?
15	A. That's possible that they did for
16	some purposes, but I don't recall.
17	Q. They were selling a product called
18	Google Earth Enterprise?
19	A. Possibly.
20	Q. And they were licensing a product
21	called Google Earth Pro?
22	A. That's possible.
23	Q. And the free version of Google
24	Earth had only been just released in 2005 when

you sent this E-mail; isn't that right? 1 2 I don't know when they exactly or 3 I can't recall when they exactly released which 4 version. 5 And your proposal in January of 6 2006 was one to three percent of patent related 7 revenue. Isn't that right? That's what's 8 written here on the slide? 9 That's what is written here on the 10 slides. 11 Q. Now, after you sent this E-mail 12 and presentation to Google, you got a response 1.3 from Mr. Jones; is that right? 14 I got a response, yes. 15 And Mr. Jones told you that the 16 '550 patent might be useful against someone else 17 who could sue Google? 18 That was -- yeah, that was also a 19 topic of the conversations. 20 Q. He didn't tell you that Google 21 needed or was interested in the patent because 22 Google practiced any of the claims of the '550 23 patent, did he? 24 Α. No.

1 He said that they're only interest 2 was so that they could use it in case somebody 3 else sued them; right? No. I think it would have been 4 5 the opposite, that they would do something if it 6 was incapacitated. 7 Q. Mr. Ang, could you please bring up 8 Plaintiff's Exhibit 329? And the top of this, 9 if you could highlight it. Mr. Mayer, this was 10 an e-mail to you from Mr. Jones at Google? 11 Α. Yes. 12 And it was sent to you on February 1.3 21st, 2006? 14 Yes, it is. Α. 15 That's less than a month after you had contacted him? 16 17 A. Yes. 18 And if you could highlight, 19 please, the second paragraph of Mr. Jones 20 e-mail. He says please note that we are eager 21 to speak with you and do believe that your 22 patent seems useful as a defense against 23 possible future legal actions. 24 Yes, I read that. Α.

1 Q. That's what Mr. Jones said to you, 2 right? 3 Α. Yes, he did say that, but as I 4 understand the patent system, you cannot defend 5 yourself with a patent. It gives you just the 6 permission to use or exclusive permission to use 7 the technology, but if someone sues you on other 8 grounds as far as I know, the only way you can 9 use a patent against another patent is to sue 10 someone with this patent, but --11 And Mr. Jones told you that there 12 were two ways of visualizing information 1.3 generally, one that was done by Google and one 14 that was described in the patent? 15 Yes, he did. 16 And you understood that to mean 17 that Google did not infringe the '550 Patent? I understood that that's what what 18 Α. 19 he was telling me. 20 And you believed that at the time? 21 Α. I decided to believe that, yes. 22 It's a little more than that, Q. 23 isn't it Mr. Mayer. You understood at the time 24 that Google did not infringe the '550 Patent,

1 isn't that right?

- A. As I decided not to look deeper into the infringement matter because that would have immediately ruled out any cooperation, any future projects if we would be discussing patent infringement. And that was not the way we wanted to go.
- Q. At no point during your discussions with Google in 2006 did you tell them that you believe that Google infringed the '550 Patent, isn't that true?
- A. I relied on that was what Michael Jones said and other people at Google said that they weren't infringing the patent and I didn't want to spend the time and effort and money to, yeah, to find out because we'd like to go somewhere else.
- Q. Mr. Mayer, I'm asking you a different question. If you could try and answer my question. In 2006, you did not at any time tell Google that you believed Google and Google Earth infringed the '550 Patent. Isn't that true?
 - A. That is true.

1 Now, Mr. Jones came and visited Q. 2 you in Berlin, correct? 3 Α. Yes. And then sometime after that 4 5 meeting you had -- there was an exchange that I 6 believe your lawyer showed us between Mr. 7 Paulisch and Ms. Lee from Google? 8 Α. Yes. 9 Could you put Plaintiff's Exhibit Q. 10 15 on the board, please? 11 Mr. Paulisch, in the middle e-mail here from July 14th, 2006, he summarizes the 12 1.3 phone call that they had. 14 Α. Yes. 15 And you participated in that phone 16 call, correct? 17 I did. Α. 18 And I don't believe that your 19 counsel read all of it, so let's look at the 20 second bullet point. Could you highlight that, 21 please, Mr. Ang. Even if the patent would be a 22 hundred percent air tight or at least meeting 23 Google's comfort level, the maximum price Google 24 would be willing to pay is one million to buy

1 the patent; is that right? 2 Α. That is right. 3 That's what Google communicated to 4 you in July of 2006? 5 Α. Google kept lowering the offers 6 they made on every phone call that we had, so 7 yeah, that was -- so here they were do you know 8 to one million. 9 Q. Well, you responded to this 10 e-mail, correct? 11 Α. Whom do you mean? 12 Well, I'll withdraw that question, 1.3 Mr. Mayer. Let me try and be more specific. 14 After this phone call, you went and talked to 15 ACI's CEO at the time, Mr. Weik; is that right? At sometime after that. I don't 16 17 know if that's directly related to this call or 18 any other phone call that might have happened, 19 but it was after, sometime after that. 20 Q. You and Mr. Weik agreed or Mr. 21 Weik agreed that ACI would accept three to five 22 million dollars for the '550 Patent; is that 23 right? 24 Yeah, we already talked about that Α.

1 too and under these circumstances that Google 2 was raising basically telling us your patent is 3 no good --4 Mr. Mayer, that wasn't the reason 5 that you told Google, was it? 6 I didn't get what you're referring Α. 7 to. 8 Didn't you tell Google that the Q. 9 reason the price was three to five million 10 dollars was because of the limited market for 11 people interested in the patent? 12 There were only a few very large 13 companies at that time who would be able to 14 compete with Google, so it was a small market, 15 but a quite exclusive one. 16 And because of that small market, 17 you told Google that you would accept three to 18 five million dollars to buy the '550 Patent, 19 correct? 20 I don't think that's was the only 21 reason. If I remember the e-mail correctly, I 22 cited a lot of other reasons, and also we wanted 23 to do something with them. So I think we 24 also -- we still prefer to package, the package

deal that would bring us forward. So --

- Q. Mr. Mayer, one of the reasons that you identified to Google for the three to five million dollars was the limited number of potential buyers for the patent, is that right?
- A. One of the reasons was that there were probably yeah about five to 10 companies we could talk to, but yeah.
- Q. Now, after, after you sent -after you told Google that you would accept
 three to five million dollars, you took some
 steps to find out the reasonable market value
 for the patent; is that right?
 - A. Yes.
- Q. And you and Mr. Weik then wrote to Google to offer again to sell Google the patent?
- A. Yes, after, after we found out that all the issues Google raised on the first round, that it was, yeah, they really -- we felt that they weren't really truthful with us or they were at least wrong about what they were telling, that the patent was bad and now, this -- now it was clear after it was in front of the patent office that Google was not right

1 about that. 2 Q. Mr. Mayer, I'd like you to try and 3 focus on my question, sir. After you talked to 4 Mr. Weik, you wrote Google and offered to sell 5 them the patent for three and a half to five million euro; is that right? 6 7 That was what the e-mail said, but 8 it was not only about the patent. Q. Mr. Mayer, I'm talking about what 9 10 you said to Google, sir. If your lawyer wants 11 to ask you what was in your head, we've heard a 12 lot about that. I'm trying to find out what you 13 told Google. 14 It was a lengthy e-mail. Everyone 15 can read what's in it and I think make up his 16 own mind what this e-mail was about. 17 Q. Okay. Well, let's take a look at 18 that e-mail. Can you pull up DTX-1004, please? 19 And this is from you to Michelle Lee at Google; 20 is that right, Mr. Mayer? 21 Α. Yes. 22 And in it you say you're attaching 23 a letter regarding the sale of the 189 Virtual 24 Globe patent; is that right?

1 Α. Yes. 2 So let's take a look at that Q. 3 letter, which is the next page of this exhibit. 4 And could you -- do you see where it says this 5 is why we offer the following, down to the 6 number -- there we go. 7 So this is the proposal that you 8 sent to Google; correct? 9 Yes, that is the proposal. Α. 10 So the first one is Art+Com sells Q. 11 the patent to Google; right? 12 Α. Yes. There are five points in it. 13 We'll walk through them. 14 section one is Google gets an exit clause that 15 allows it to exit the agreement after four years 16 and get back 50 percent of the amount paid; 17 right? 18 A. Yeah. 19 Google gives Art+Com a 20 nonexclusive license to use the patent for its 21 own work; right? 22 Yes. Α. 23 So Art+Com -- Google will own the 24 patent, but Art+Com gets to keep using it?

1 Right. Α. 2 Q. Google gets support from Art+Com 3 in its legal dealings; right? 4 Α. Uh-huh. 5 Q. And five, Art+Com gets to be 6 listed as a partner in the Google Earth project 7 and use that project for its own promotional purposes? 8 9 Yes. Α. 10 Those were the only terms you 11 proposed; right? 12 Α. Yes. 13 As a result of the above agreement 14 Art+Com receives a one-time payment between 3.5 15 and five million euros, depending on the extent of the back license and other conditions we will 16 17 agree on; correct? 18 Α. Yes. 19 That was your proposal to Google? 20 Yes, that was our proposal. And 21 it had five points on it, and it would have been 22 really awfully large, huge to be a partner with 23 Google in this Google Earth business. 24 The partner you're referring to is Q.

1 being listed as a partner; correct? 2 Α. Yes. 3 Now, you didn't say anywhere in 4 this communication that you thought Google 5 infringed the '550 patent; correct? 6 A. Yes. 7 In fact, at no time during 2006 0. 8 did you ever suggest to Google that it infringed 9 the 2006 patent? 10 No. We accepted what Google had 11 told us at face value, so maybe we were a bit 12 naive, but we accepted what Google was telling 13 us. 14 It seemed fair to you, didn't it, 15 that there was at least one other way of doing 16 either visualization beyond what was described 17 in the patent? 18 It might have been possible, but 19 we had no way of determining that. And as I 20 said, we had also no intention of spending 21 precious lifetime doing that. 22 Q. Now, you talked about the

made over the years. Do you recall that,

demonstrations of your T-Vision system that you

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1 Mr. Mayer, earlier today? 2 A. Yes. 3 And you showed the T-Vision system at several locations? 4 5 Yes, we did. Α. 6 Ο. One of those was at Siggraph 95? 7 Yes. Α. 8 And you attended that conference; Q. 9 right? 10 A. I was there for the whole 11 conference. 12 Siggraph is a very popular 13 conference, yes? 14 It was more popular at that time 15 than today, but it is still a popular conference. 16 17 Q. At that time thousands of people 18 would attend Siggraph conferences; right? 19 Probably 20 to 50,000. 20 Almost as popular as a football 21 The Siggraph 95 conference was open to 22 the public, wasn't it? 23 Well, if you were willing to pay 24 the thousand dollars attendance fee, you could

1 go there. 2 And apparently 20 to 50,000 or so 3 people did? 4 Α. Yes. 5 Now, that conference occurred in August of 1995? 6 7 Α. Yes. 8 That was more than a year before 9 you filed for your US patent application; 10 correct? 11 A. Yes. 12 In connection with that 13 conference, Art+Com submitted a paper; is that 14 right? 15 I don't know. I personally did 16 not submit a paper, but there was some 17 information found its way on to Siggraph. But I 18 became aware of later. So it looked like a copy 19 of the Art+Com website reformatted, if you're 20 referring to that. 21 Let's try and break that down 22 because that's kind of a mouthful, Mr. Mayer. 23 The proceedings for the materials associated 24 with Siggraph were generally put on CD-ROMs,

1 right? No, I don't think so. 2 3 Let me be more specific. The 4 materials for Siggraph 95 were put on a CD-ROM; 5 correct? 6 There were papers and proceedings 7 and additional materials, so there was a bunch 8 of material there, and I also heard that some 9 material was distributed as CD-ROM at that time. 10 Q. You heard that there was material 11 distributed at Siggraph 95 on CD-ROM? 12 I have heard about that there was 13 material generally distributed on CD-ROMs during 14 that time. And you actually reviewed a CD-ROM 15 from the Siggraph 95 conference, haven't you? 16 17 I reviewed material that I found 18

out a couple of years ago, that was -- that was at some point in time was distributed from the -- by the Siggraph committee.

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- Well, I want to be specific. You reviewed a CD-ROM from Siggraph 95; correct?
- Yes. We found material on the internet that was entitled CD-ROM of materials,

1 so we didn't have an actual CD-ROM, but we 2 thought at some point in time it would have been 3 on a CD-ROM. And we submitted I think this 4 material to the patent office. 5 That CD-ROM material from Siggraph 6 95 that you reviewed included a paper about your 7 T-Vision system; isn't that right? 8 I wouldn't call it a paper. 9 get it from Siggraph was a very tedious process. 10 You have to go through a lot of peer reviews, so 11 what was on the CD from what we submitted was 12 the marketing material, it was not the paper in 13 the sense of the scientific paper. 14 I don't want to get hung up on 15 whether we call it a scientific paper or 16 marketing material, Mr. Mayer. So let me try 17 and change the question. You reviewed CD-ROM materials from 18 19 Siggraph 95, and they contained marketing 20 materials about your T-Vision system; correct? 21 Α. Yes. 22 And it involved that -- those 23 marketing materials included or were a 24 description of your T-Vision system; isn't that

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1
       right?
 2
                     There were some discussions, yes,
 3
       about the T-Vision system.
 4
                      THE COURT: Mr. Snyder, are we at
 5
       a point where it would be convenient to take a
 6
       break?
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                     MR. SNYDER: That would be fine,
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       Your Honor.
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                      THE COURT: We'll take a
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       fifteen-minute break and come back at quarter to
       4:00.
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                      (Jury leaving the courtroom at
13
       3:30 p.m.)
14
                      THE COURT: Anything further we
15
       need to discuss?
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                     MR. SNYDER: Nothing from
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       defendants.
18
                     MR. PARTRIDGE: Nothing.
19
                     THE COURT: Anything we need to
20
       address?
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                     MR. PARTRIDGE: Yes, Your Honor.
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       I didn't object to this, but I thought Mr.
23
       Snyder was getting awfully close to the line and
24
       I tried to avoid having to get up and object and
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1
       interfere with flow and when it's borderline.
 2
       But we have an agreed limine that says that
       reference to testimony of, arguments about ACI
 3
       or Art+Com as a non-practicing entity, patent
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 5
       assertion entity, patentrol or any other similar
       characterization is not permitted in this case.
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7
       And we're getting very close to that line and
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       going over and over again about whether they are
 9
       selling any products and what they've sold and
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       that they haven't sold.
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                     THE COURT: He's probably done
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       with that, isn't he?
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                     MR. SNYDER: I'm done with that,
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       Your Honor. I don't have more questions on that
15
       topic.
16
                     MR. PARTRIDGE: Okay. Good.
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                     THE COURT: Are we ready to bring
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       the jury back?
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                     MR. SNYDER: Yes. Thank you, Your
20
       Honor.
21
                     (Jury enters.)
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                     THE COURT: Okay. Thank you, Mr.
23
       Snyder. Be seated. You may proceed.
24
                     MR. SNYDER: Thank you, Your
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1 Honor. 2 BY MR. SNYDER: 3 Mr. Mayer, earlier this afternoon Q. 4 you testified about a system from SRI that was 5 also called the TerraVision system. Do you 6 recall that? 7 Yes, I recall that. You found the website for the SRI 8 9 TerraVision system, didn't you? 10 Yes, I did found the website, yes. Α. 11 And you found that it was in the Q. 12 same field of geographic visualization as your T 13 vision project, correct? 14 Yes, it looked very much like 15 that, yes. 16 And you actually wrote to them and 17 pointed out to them that it was based on -- had 18 the same name? 19 Α. Yes. 20 Q. And it had the same goals? 21 It looked like that, yes. Α. 22 And that it was based on the same Q. 23 technology? 24 Α. Yes.

1 That was the e-mail that we saw 2 earlier. Just to remind us, Mr. Ang, could you 3 pull up DTX-1196? This is the e-mail that you 4 wrote to Yvan Leclerc? 5 Yes. Yes, it looks like the 6 e-mail. 7 Just take perhaps that first 0. 8 sentence, the print isn't terrific, so we'll try 9 to make hit bigger so we can see. Says Hi Yvan, 10 I found your home page a few days ago and we're 11 really astonished about the fact that there is a project with the same name, the same goals and 12 is based on the same technology. That's what 13 14 you wrote to Mr. Leclerc, right? 15 That was my first impression when 16 I saw the website, yes. 17 And Mr. Leclerc wrote to you and 18 he told you that SRI also used a multi 19 resolution pyramid of imagery that allows the 20 user to zoom in from high altitudes down to low 21 altitudes; is that right. 22 That is what he claimed. 23 Okay. And he also told you that 24 SRI used ATM image servers?

1 That's what he wrote in this Α. 2 e-mail. 3 ATM stands for asynchronous Q. transfer mode? 4 5 A. Yes. It's a way for computers to 6 7 communicate with servers? Yes, it's a low level network 8 9 protocol that was very, was coming up at that 10 time. 11 Q. After you wrote Mr. Leclerc this 12 e-mail, he wrote you back, correct? 13 Α. Yes, he did. 14 Q. And he wrote back and told you 15 about something he called the image server 16 system? 17 A. Yes, that was in his response 18 e-mail. 19 The image server system, he Q. 20 pointed out was something that fell under the 21 category of a distributed data system, right? 22 A. He was claiming, yes, that this 23 was a distributed, some kind of distributed data 24

system.

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1 Q. And this message, the one that 2 follows, your message back to Mr. Leclerc, so on 3 the next page of this exhibit, Mr. Leclerc wrote 4 back to you, let's just check the date, this is in June of 1995? 5 6 Α. Yes. 7 I'm sorry. June 1995? Ο. 8 Yes. I think the date is correct. 9 So by the middle of 1995 you had Q. 10 this information from Mr. Leclerc about the SRI 11 system and you had also found the SRI web page, 12 right? 13 I did, yes. Α. 14 Now, you wrote to Mr. Le -- in 15 this exchange with Mr. Leclerc you mentioned to 16 him the database that the ACI or Art+Com system 17 used. Do you recall that? I think I did make some statements 18 19 about that, yes. 20 Q. You told them that your first 21 prototype can handle a database of practically 22 unlimited size? 23 Yes, I wrote that and I hoped that 24 at some time we were ready to do that.

1 You were referring to the 2 prototype that you demonstrated in Kyoto, Japan? 3 No, actually at that time we hoped Α. to get such a system at one point to use the 4 5 network and the distributed database, but we 6 hadn't figured out really how to do it all, but 7 the idea of using a network was there. 8 So you told Mr. Leclerc that you Q. 9 had already set up a permanent node in Tokyo and 10 have another in Sunnyvale this year? 11 We hoped to do that too, but the 12 node -- I can't recall ever having a node in 13 Tokyo and also a node to Sunnyvale also didn't 14 manifest for a lot of reasons, mainly the network wasn't there. 15 16 Well, Mr. Mayer, what you told Mr. 17 Leclerc was that you had already had a permanent 18 node in Tokyo, right? Yes, but that was a bit more hope 19 20 than reality. 21 Let's take a look at your exact 22 I don't think it's this message. 23 the one above it I believe. Yes, it's the last 24 paragraph of the message on the second page.

1 starts I returned from holidays. Okay. And if 2 you start and you look at the second to the last 3 sentence it begins in the middle of the paragraph, we already set up a permanent node in 4 5 Tokyo and have planned another in Sunnyvale this 6 year. Do you see that? 7 Yes, I see that. Α. 8 You didn't tell Mr. Leclerc that Q. 9 this was an aspiration or goal or desire, you 10 told him we already set it up? 11 Yes, I told him that and that 12 wasn't completely truthful. 13 It wasn't complete true, was it? 14 Α. No. 15 And you thought it was okay to not 16 be completely truthful because you were just 17 writing an e-mail to him, right? 18 Well, he wasn't completely 19 truthful to me too. It was -- we had to, as the 20 Deutsch Telecom, a telecommunication company 21 wanted that we had to present the project in a 22 special way that involved networking. 23 Mr. Mayer, Mr. Leclerc is not here 24 to defend himself. You know he's passed away,

1 right? 2 Α. Yeah. 3 So I'm asking you about what you Q. said. 4 5 Α. Yes, I said that. 6 You told Mr. Leclerc, you said Q. 7 something in your e-mail that wasn't true? 8 Α. Yes, I did. 9 And you thought it was okay to Q. 10 tell him that because it was just an e-mail? 11 Α. No, it was because we had already 12 agreed with WeatherNews to put the node in their 13 offices, so we hoped that we would have it quite 14 soon, but unfortunately it didn't workout. 15 So you just went ahead and told 16 Mr. Leclerc that you already had it? Because it was coming soon, so 17 Α. 18 yes. 19 Turns out it wasn't coming soon, Q. 20 was it? 21 No, it didn't materialize. Α. 22 You never set up a permanent node Q. 23 in Kyoto, Japan? 24 Α. No, we didn't.

1 Mr. Mayer, as one of the inventors 2 on the '550 Patent and the patents that preceded 3 it, you had to sign a declaration as part of the 4 application process. Do you recall that? Yes, I recall that. 5 6 And are you familiar with what's 7 called the duty of candor? 8 I think I understand it, but I've 9 never heard this, these words, so if you 10 could --11 Q. Sure. Let me try and explain it. 12 You understood that you had a duty to disclose 1.3 information which is material to the examination 14 of the application? 15 MR. PARTRIDGE: Objection, Your 16 Honor. Not relevant to this. 17 MR. SNYDER: It absolutely is 18 relevant, Your Honor. It relates precisely to 19 the testimony he's given about his knowledge of 20 various systems. 21 THE COURT: Let's see where this 22 is going. Do you have an objection to later 23 questions? It's overruled. BY MR. SNYDER: 24

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1 When you filed your application in 2 the United States in December of 1996, you knew 3 that you had a duty to disclose information 4 which is material to the examination of the 5 application? 6 Α. Yes. 7 And you acknowledge that duty 0. 8 under oath; correct? 9 A. Yes. 10 Q. At the time that you submitted the 11 application in December of 1996, you were aware 12 of the SRI system; isn't that right? 13 A. I was aware. 14 And you had been communicating 15 with Mr. Leclerc about the SRI system; correct? 16 I had been communicating about it, 17 but I think I also wrote that I didn't -- that I didn't look into the details at that time. 18 19 Q. You told him that it was based --20 it had the same goals and the same -- based on 21 the same technology; correct? 22 When I also sent that I completely 23 lost interest in what SRI was doing at the time 24 after seeing their system at Siggraph, so in

1 talking to them I remember that I did not 2 consider it really as relevant what they were 3 doing. 4 Mr. Mayer, I'm not asking whether 5 you had interest in it or not, I'm talking about 6 your sworn obligation to the Patent and 7 Trademark Office. So when you applied in 8 December of 1996 for the US patent, you were 9 aware of SRI's system; correct? 10 MR. PARTRIDGE: Objection. It's 11 been asked and answered and I think we're 12 crossing the line. 13 THE COURT: Overruled. 14 BY MR. SNYDER: 15 Were you aware of the SRI system in December of 1996? 16 17 I was aware of the system, but I 18 didn't consider it as relevant what they did, 19 and the patent examiner later came to the same 20 conclusion. 21 MR. SNYDER: Move to strike as 22 nonresponsive, Your Honor. 23 THE COURT: Denied. 24 BY MR. SNYDER:

1 Mr. Mayer, in December of 1996 2 when you had a duty to disclose all material 3 information to the Patent and Trademark Office, 4 did you disclose anything related to SRI? 5 Α. Maybe there was something in it, but I don't recall what information was 6 7 available to me at that time. 8 Mr. Mayer, you had seen the SRI 9 website; correct? 10 Yes, I think so. Α. 11 And you had had E-mails with Q. 12 Mr. Leclerc about the operation of the SRI 13 TerraVision system? 14 There was some E-mail exchange 15 about that. 16 And isn't it true that you did not 17 disclose anything to the Patent and Trademark 18 Office in December of 1996 about that system? 19 I do not recall what we disclosed. 20 MR. SNYDER: Mr. Inge, could you 21 bring up Plaintiff's Exhibit Number 3, please. 22 And in particular, page two. 23 This is the same format of the 24 material that your attorney showed you,

1 Mr. Mayer, and over at the bottom of the first 2 column it says references cited. Do you see 3 that? 4 Α. Yes, I see that. 5 It has US patent documents, and it identifies a patent from Shamada? 6 7 Yes, I see that. 8 It goes over to the next column 9 and it has one patent from an inventor named 10 Iwasura. Do you see that? 11 Α. Yes. 12 Q. And it cites two foreign patent 13 documents; correct? 14 A. Yes. 15 It doesn't cite anything at all 16 there from SRI, does it? 17 No, it doesn't. 18 Now, in December of 1996, when you 19 filed your application with the US patent office 20 and you had your duty of disclosure, you had 21 been demonstrating the ACI or Art+Com system for 22 several years, hadn't you? 23 What date are you referring to? 24 Q. December of 1996, sir.

1 Α. Yes. 2 Q. You had been demonstrating that 3 system at a variety of conferences around the 4 world? Yes, we did. Uh-huh. 5 Α. And you did not disclose in 6 0. 7 December of 1996 anything about the Art+Com 8 T-Vision system; isn't that right? 9 First, I misspoke my last answer Α. 10 to the question. Because I thought you were 11 referring to the -- to the demonstrator, right. 12 I am referring to the demonstrator 13 and the Art+Com system, yes, sir. 14 Yes. But the demonstrator was --Α. 15 the technology of the demonstrator was not what 16 we claimed in the patent. Q. But you didn't disclose to the 17 18 patent office anything about the T-Vision 19 system, did you? 20 Yes, of course we did disclose. 21 In December of 1996 when you filed 22 your application for a US patent, you did not

disclose anything, there were no references

regarding the Art+Com T-Vision system, were

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1 there? 2 It was describing, it was all 3 about the T-Vision system, the patent itself. 4 Mr. Mayer, the two US patents that 5 are cited on the face of this patent as references cited there, they're not about the 6 7 ACI system, are they? 8 What do you mean was the ACI 9 system, which --10 Q. I misspoke, the Art+Com T-Vision 11 system, what you call the demonstrator of these 12 references cited on the face of that patent are 13 about that system, are they? 14 Α. They are --15 MR. PARTRIDGE: I object, Your 16 Honor, this is not relevant. This is not prior 17 art in this case. THE COURT: I think there is some 18 19 merit, but we weren't going too deep into this. 20 Maybe one or two more questions. BY MR. SNYDER: 21 22 Q. Mr. Mayer, you didn't disclose 23 anything to the Patent and Trademark Office 24 about the Art+Com system until 2013, did you?

1 No, I disagree. Α. 2 Q. When did you first disclose 3 anything about the T-Vision system? 4 Again, the patent business the 5 T-Vision system, so if --6 Q. This is the difficulty. 7 Mr. Mayer --8 THE COURT: Mr. Snyder, I think 9 you ought to ask the witness about the 10 demonstration of that system that existed before 11 the priority date. But let's do that and then 12 move on. 13 MR. SNYDER: Thank you, Your 14 Honor, I will. 15 BY MR. SNYDER: 16 Q. Mr. Mayer, before December of 17 1996, you had demonstrated the T-Vision system, 18 you had the demonstrator; correct? 19 Α. Yes. 20 And you described certain aspects 21 of it in the patent application? 22 There are some aspects of this 23 system that was a precursor are also referenced 24 in the patent, yes.

1 Q. And you had a web page that 2 described that system? 3 Yes, there was some marketing 4 materials we talked already about. 5 Those are the marketing materials that were on the Siggraph 1995 CD-ROM? 6 7 Α. They are very similar to this 8 material. 9 When you filed for the US 10 application in December of 1996, did you provide 11 the US Patent and Trademark Office with a copy 12 of those marketing materials that were included 13 in the Siggraph 95 CD-ROM? 14 No, we didn't because they were 15 not relevant. 16 MR. SNYDER: Thank you, Your 17 Honor. No more questions. 18 THE COURT: Mr. Partridge, 19 redirect. 20 MR. PARTRIDGE: Yes, Your Honor. 21 REDIRECT EXAMINATION 22 BY MR. PARTRIDGE: 23 Q. Mr. Mayer, I would like to try to 24 clarify a few things here. And I would like to

1 start kind of with the subject that counsel left 2 off with. 3 As to Siggraph 95, you attended 4 that; correct? 5 A. Yes. 6 While you were there, did you 7 receive CD-ROM materials? 8 MR. SNYDER: Objection. Leading. 9 THE COURT: Overruled. 10 THE WITNESS: I don't recall 11 receiving any CD-ROM materials at Siggraph 95. 12 Do you know anyone at Art+Com who 13 received CD-ROM materials at Siggraph 95? 14 Α. I don't know. 15 When is the first time you heard 16 about CD-ROM materials associated with Siggraph 17 95? 18 Α. It was a couple of years ago when 19 -- before we applied for the reissue. 20 That's the first time? Ο. 21 Α. That's the first time as far as I 22 recall that I was aware of this material. 23 Q. Would it have been possible for 24 you to submit these materials to the patent

office in 1995 and '96 given that?

A. I don't know, but we didn't consider this marketing papers as something you wanted to submit to the patent office. They were badly written, full of errors and didn't meet any scientific standards at all.

So only later we were advised to do that and I think I said the patent examiner didn't reject any -- the patent because they existed, so we were right in the first place, and they were.

- Q. I would like to turn to SRI

 TerraVision. You were asked some questions

 about submitting SRI TerraVision to the patent

 office. I understand from your testimony

 earlier you said that they have been submitted

 since then. But in 1995 when you knew about SRI

 TerraVision, what was your understanding as to

 what it did and what it didn't do with respect

 to what you were doing?
- A. I mean, I already said that I lost interest after seeing the system at Siggraph, that I was disappointed. So I didn't do much about the technical details of the system, only

that it didn't look very impressive to me. And later I found out that it was also very -- that it was also limited -- they were showing on Siggraph flying around or driving around, driving around in an area of about 40 square miles around some US military base, so there was no world, no globe. It looked just like someone driving around in a sandbox. So that was the level of excitement I got.

And also later I learned why they couldn't do the whole earth because they had to have an equal resolution for the whole level so if they would have put the whole world in at that time the system wouldn't have worked very well. So that were basically the reasons why I completely stopped getting interested in the SRI system.

Q. Now, you were asked about

DTX-1196, which should be in front of you in

your notebook and I'll ask Mr. Lodge if he can

pull it up. I'm in the wrong place. Thank you.

Okay. This is rather small. Is it going to be

easy to blow this up? You were asked a number

of questions about your communications back and

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1 forth with Mr. Leclerc. I'd like to ask you 2 about a few things that weren't discussed in 3 reviewing it. If you go to, let's see, it's 4 hard to find this. Let me do this quickly. If 5 you go to the e-mail in this chain on June 9th, which is the third e-mail from Leclerc. You 6 7 know what, I'm going to skip this because it's 8 too hard and it will take too much time. 9 have a recollection of this e-mail exchange? 10 Partially, so --Α. 11 My question is this. Did Mr. Q. 12 Leclerc tell you things about your system in 13 this e-mail that he had observed? 14 A. Yes. 15 Did he talk about things that you 16 had accomplished in your system that he wondered 17 about? 18 Yes, I think he was -- he liked 19 that we were able to both have the whole world 20 and high resolution areas in some places. And 21 in fact, I remember that later SRI used a 22 similar technology than we had been using in the 23 demonstrator.

Q. Did he ask you how you

1 accomplished things? 2 Yes, I think so, but I don't 3 recall the details. 4 And Mr. Mayer, I'm not going to 5 take the time to go through it. I'd like to 6 refer you to DTX-1004, which was a, an e-mail 7 that you were asked about from September of 2006 8 and I'm going to refer you to the list of terms 9 that you discussed with Mr. Snyder. And you 10 went through five things. You were talking 11 about item number five, Art+Com will be listed 12 as a partner of the Google Earth and you started 1.3 to give an answer, but you weren't able to 14 finish the answer. Do you recall having had a discussion about that? 15 16 Α. Yes. 17 What is your complete answer with 18 respect to paragraph number 5? 19 Yes. I mean, I wouldn't assume 20 that Google would list someone as partner who 21 isn't a partner actually, which that was what I 22 wanted to add at this point. 23 Did this have any value to 24 Art+Com?

A. Well, being a partner of Google for our company, it's priceless.

- Q. In the next paragraph, you'd say depending on the extent of the back-license and other conditions, do you see that?
 - A. Yes, I do.

- Q. Had you discussed the back-license and other conditions with Google at this point?
- A. No, we hadn't discussed much, but it was for us we were also interested in possibly continuing the work on the T vision system and not completely losing the patent, so we couldn't do anything in this field again.
- Q. And it says in the next line, today's situation. What did you mean by that?
- A. Well, the situation that was that said Google was saying the patent is no good, so that it has issues and also we expected that, yeah, that the market will develop and things will change over time, that there will be much more users over time, so with the term at this time, we really meant at this time without considering. So we definitely also wanted to say, okay, in the future, everything will be

1 different. Q. You were asked if you had had a 2 3 stake in ACI. Do you remember that? 4 Yes, I remember that. 5 You weren't asked what your stake 6 is. What is your stake in ACI? 7 Α. My stake is around two percent. 8 Do you have any idea what that 9 stake would amount to in connection with this 10 case? 11 Depending -- I don't really know, 12 because if any money is awarded in this case, 13 it --14 MR. SNYDER: Objection, Your 15 Honor, speculation. He's just testified he 16 doesn't know. 17 MR. PARTRIDGE: I'll take that 18 answer, Your Honor. We can stop at I don't 19 know. Thank you, Mr. Mayer, I appreciate it. 20 THE COURT: All right. 21 MR. PARTRIDGE: I do have some 22 exhibits to offer into evidence, Your Honor. 23 THE COURT: Yes, but let's wait. 24 Does counsel have any more questions for this

1 witness? 2 MR. SNYDER: Nothing further, Your 3 Honor. 4 THE COURT: Okay. So before we 5 admit the exhibits into evidence, the question is whether any member of the jury has a question 6 7 for this witness. And as I mentioned before, 8 each of you should take a piece of paper and if 9 you have a question, write the question on the 10 piece of paper and then the courtroom deputy 11 will collect all eight pieces of paper and hand 12 them to me and I'll go tally whether there is a 13 question. And if there is a question, whether 14 it's appropriate to ask it. Okay. Ready to 15 collect the questions now? Pieces of paper. 16 Could counsel approach the bench, 17 please? 18 (Side bar discussion.) 19 THE COURT: There are three 20 questions. One is there's a three-year wait for 21 a U.S. patent. How long is the wait for a 22 patent in Germany? I don't think that's 23 relevant. 24 MR. SNYDER: Or true.

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                     THE COURT: The second question is
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       is how did so many people come up with the name
 3
       TerraVision? What does it mean?
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                     MR. PARTRIDGE: He isn't going to
 5
       know the answer to that. He won't know the
 6
       answer to that.
 7
                     MR. SNYDER: No.
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                     THE COURT: Okay. So we won't ask
 9
       that question. The third question is was the
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       patent ever obtained in Germany? The witness
11
       already testified it wasn't.
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                     MR. PARTRIDGE: We'd end up
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       getting into -- there was one in Europe, the
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       EPO, but they didn't pay the fee, but you get
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       into a complications that I don't think makes a
       difference.
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17
                     MR. SNYDER: I think he already
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       answered that question.
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                     THE COURT: Well, why don't one of
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       you tell the jury or should I tell the jury that
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       the last question was already answered.
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                     MR. SNYDER: I think it would be
23
       appropriate for Your Honor to do that.
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                     (Side bar discussion ended.)
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1 THE COURT: The third question was 2 was the patent ever obtained in Germany. It was 3 not obtained in Germany. And don't think of 4 anything negative about not asking the 5 questions. It's just in discussions with the 6 lawyers I concluded that it wasn't appropriate 7 to ask the other two questions. So Mr. 8 Partridge, you have a motion for admission of 9 exhibits. 10 MR. PARTRIDGE: Yes, Your Honor. 11 I would offer PTX-267, 117A and B, 303A and B, 12 236, 295A and B, 13, 122, 15, 16, DTX-1071, 13 PTX-324 and 123. As to PTX-7, which is the 14 physical exhibit over there, I'm not sure 15 whether the Court wants that officially as a 16 physical exhibit. And maybe we should talk 17 about that tonight as to how to handle that as 18 opposed to the Court having to struggle with 19 holding this kind of physical exhibit. 20 THE COURT: I tend to think it 21 would be all right to admit the exhibit into 22 evidence, but perhaps if counsel agreed to allow 23 the exhibit to remain in the custody of counsel, 24 instead of in the custody of the court.

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                     MR. PARTRIDGE: Then I offer it,
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       Your Honor.
 3
                     THE COURT: Is there any
 4
       objection?
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                     MR. SNYDER: No further
       objections, Your Honor.
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                     THE COURT: Those exhibits are
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       admitted into evidence subject to the one
9
       exhibit which will remain in custody of counsel.
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                     MR. SNYDER: We have two exhibits
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       to offer into evidence based on the prior
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       witness's testimony, Your Honor, DTX 1004 and
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       DTX 1196.
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                     MR. PARTRIDGE: No objection, Your
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       Honor.
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                     THE COURT: Those exhibits were
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       also admitted into evidence.
18
                     Now, the witness is excused.
                                                    Ιs
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       the witness going to be subject to recall?
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                     MR. SNYDER: Yes, Your Honor,
21
       although we'll communicate with counsel about
22
       that.
23
                     THE COURT: Mr. Mayer, you're
24
       excused for the moment, possibly subject to
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1 recall. Thank you. 2 THE WITNESS: Thank you, Your 3 Honor. 4 THE COURT: Mr. Partridge, call 5 your next witness. 6 MR. PARTRIDGE: Our next witness 7 will be called by videotape. His name is 8 Michael Jones. And the only brief introduction 9 I would do with Michael Jones since everybody 10 has heard about it is to say the depo includes 11 both designations by the plaintiff ACI and 12 Google. And the deposition transcript runs in 13 the order the deposition was taken so it's not 14 possible to separate who said what. And this is 15 just a normal way to do it. So we will play the 16 deposition videotape of Mr. Jones. 17 THE COURT: Okay. Thank you. 18 (Videotape deposition) 19 Would you please state your name Q. 20 for the record? A. Michael T. Jones. 21 22 For what period of time were you Q. 23 employed by Google? 24 A. From 2004 until April of this

1 year, 2015. October of 2004, I believe it was. 2 Q. And what did you do at Star? 3 I worked on flight simulators. Α. 4 And I had a chance to follow my true passion, 5 which was computer graphics. So I went there to 6 build flight simulators. 7 Star Technologies was the low 8 cost, low quality by comparison, child of 9 General Electric's flight -- high-end flight 10 simulation division in Daytona Beach, Florida. 11 They made the very sophisticated 12 multimillion-dollar simulators. We made low 13 cost what are called part-task trainers. 14 So you could learn how to operate 15 a one heads-up display in a cockpit or you could 16 learn how to operate something simple. Of 17 course, we had visions of taking over their --18 their business some day because technology was 19 on our side of the small product, the 20 inexpensive product. So I still believe that. 21 How long were you at Star? 22 From 1988 until January 10th, 23 January 9, 2000. 1982. 24 What did you do on January 9th, Q.

1 1992? 2 I left Star Technologies. 3 And where did you go? 4 On January 12th, 1992, I started 5 my first day of work at Silicon Graphics, Incorporated in Mountain View, California. 6 7 I'll use a broader term. Ο. 8 there a showroom at SGI? 9 There was. There was a -- there Α. 10 was a -- there was a corporate customer briefing 11 center that was in the building where the 12 executives were where the company brought people 13 in to wow them. And the sales force would go 14 over there. And because the sales force and the 15 customers -- customers generally weren't allowed 16 where the engineers were. So that was the 17 special headquarters building where the CEO and 18 those people were. Ed McCracken and Jim Clark 19 were there. 20 Was Art+Com's TerraVision ever in Ο. 21 one of those demonstration areas? 22 It was. Α. 23 And what did it -- what did that demonstration look like? 24

A. It was -- it as -- and I told

Pavel when he came it was -- P-A-V-E-L, a name
that figures in this case. I told him when he
came it was one of my favorite demonstrations
they had done. Because they had made some
fantastic ball. It was maybe as -- the diameter
of it was maybe as big as this table, so let's
say 30 inches or maybe even 36 inches or so. It
was a big ball, and it was a little cage, and
somehow there were rollers or something that
could measure the rotation of this ball.

- Q. How long was that demonstration in the corporate briefing center?
- A. I have no idea. I -- I wasn't part of putting it there or taking it away so I don't know. I wasn't -- you know, I wasn't like -- you know, it was like a big company and I was, like, working in another building. And somebody said I want you to come over and see -- see this demo. So I went over there and saw the demo. I saw it that day and I -- you know, for 20 minutes or something. I don't know how long it was there after that.

I've seen the boom many times, and

1 I saw that ball there just once. I hosted 2 Michael Jackson when he came to SGI and took him 3 up there and showed him things. And the boom 4 was there, but the ball wasn't there. So I -- I 5 don't know what day he came, but -- but as far 6 as I know, that -- that company just came and 7 showed their ball and the graphics thing and 8 went away. I -- I -- I don't -- I don't know of 9 any lasting presence. 10 Q. Did you have any communications 11 with them about installing that demonstration 12 project? Not -- not as far as I know. I --13 Α. 14 I was just invited to go see it. 15 So by the time you went to see it, 16 it was already set up; is that right? 17 Uh-huh. Α. 18 How long were you at SGI? 19 I think I left in 1999 or else 20 late 1998. So seven years, say. 21 And when you left SGI, what did 22 you do next? 23 I did consulting. 24 And what did you do after that? Q.

1 Α. I started a company. 2 And what was the name of the Q. 3 company you started? Intrinsic Graphics. 4 Α. 5 Q. Prior to selling Intrinsic 6 Graphics, did you spin out any companies from 7 Intrinsic Graphics? 8 Yes. We spun out Keyhole from 9 Intrinsic Graphics. 10 Did anyone work on the demo other 11 than Chris, Remi and you? In the creation of it? 12 Α. 13 Q. Yes. 14 Α. No. 15 So after putting together the Ο. 16 demo, did you -- who -- who besides yourself 17 continued to work on that demo? A. Oh, I didn't -- I didn't continue 18 19 to work on it at all. I was running the 20 company. 21 Q. Okay. 22 The demo was -- once the VC said 23 okay, we're going to fund you, that was the last 24 time I touched that demo.

Q. I just wanted to make sure because you had Intrinsic demo and Earth demo. But those are the same things.

A. Yes, sir.

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- Q. Could you tell me about the ClipMaps?
- Sure. ClipMapping is a patent I'm a named inventor on, and it actually was a complete and total invention of mine. Complete, like it came to me in a hotel room just as a -the whole thing, like basically the circuit diagram, the programing model, the entire thing was just in my head. And I wrote as fast as I could for hours. And I went back to SGI and I said we have to change the hardware that we're building. We were -- the hardware was close to tape-out. I wanted to make substantive changes to things that were very important. And I got everybody excited about it. And then the boss said you can't, it's too late. And I started buying, you know, whiskey and prizes and things for people to actually do the work anyway, and I made them build that.
 - Q. Were you a director of Keyhole

1 from the start of that company's existence? 2 Α. I was. 3 When was the first time that you worked on software for displaying geographic 4 5 information? Probably 1990. Maybe -- no, wait. 6 7 No, no, that's wrong. That's wrong. I'm totally wrong. 1980, '79 or 80. 8 9 O. Was that with Ikonas? 10 No, it was after Ikonas for a 11 company called Lan -- what's the company's name? 12 It was a company's name I can't think of right 13 now but who sold themselves to a company called 14 Landmark Graphics. And Landmark Graphics I 15 think is in Houston, Texas. They're a big GIS 16 software company or something, but oil industry 17 or something or other. 18 But this company that I worked for 19 was in Raleigh, North Carolina. And they 20 basically -- Landmark wanted basically a 21 geographic information system that did terrain 22 processing and did hidden surface views, 23 basically line-of-sight calculations, what can 24 you see from here. You know, like looking over

the skyline you can see taller buildings and 1 2 taller buildings. Or if you're in the 3 mountains, you can see taller and taller 4 mountains but you couldn't see the valleys. And 5 they wanted some calculations to be done like 6 that. 7 And I had a contract with that 8 company. It was call Geobased Systems, 9 G-E-O-B-A-S-E-D Systems, on Hillsborough Street 10 in Raleigh, North Carolina. And if I keep 11 thinking, I'll probably think of the name of the 12 people there. 13 But anyway, I built for them a 3D 14 computer graphic visual simulation, you know, 15 hidden surface rendering system. It wasn't 16 realtime like Earth, you know, but was -- that 17 was pretty ahead of its day at the time, 1980, '80 or '81. 18 19 Were you part of the discussion 20 for Google Earth to be freely downloadable? 21 It was the plan all along. So I 22 don't remember a specific discussion about it, 23 but it was the intention. 24 Q. And was it discussed with Google

1 prior to the acquisition that that was the 2 intention? 3 A. Well, I mean, it -- it -- well, it 4 was the -- it was the nature of the discussion 5 with Google that it would be free. If you'll take a look at Exhibit 6 7 4, which has document numbers ACI 10608 through 8 10610. 9 A. Patrick, who is Patrick I see 10 here? I mean, I'm -- everything's cool. I'm 11 just trying to figure this out here. 12 Take the time you need to take a 13 look at it. 14 A. Okay. Well -- Patrick Ling. 15 Okay, got it. 16 Q. Okay. Looking at the "To" line in 17 the first e-mail, is that your e-mail address 18 from SGI? 19 Absolutely. And my machine -- my machine name was called Babar, the lovable 20 21 elephant king. And ASD was the Advanced Systems 22 Division. It's the part of SGI that I worked 23 in. I remember Axel Schmidt, I remember that 24 name.

1 The e-mail is dated -- and here, 2 you know, it's always difficult with the 3 European writing here in America. I think it's 4 July 3rd, 1995, but I wanted to check. Do you 5 have a memory of when the T vision system was installed at the customer briefing center? 6 7 No idea whatsoever. 8 I will ask the court reporter to 9 mark what looks like will be Exhibit #5. Well, 10 I wanted you to -- to read through the message 11 that's above that be seeing you. And just see 12 if that refreshed your recollection at all about 13 communications you may have had at the time. 14 Α. Let's see. This is me writing to 15 Axel? 16 I'm asking. Q. 17 Says your project sounds wonderful

A. Says your project sounds wonderful and is very much a good candidate for Iris

Performer 2.0. Oh, I'm sorry. Your project sounds wonderful and is very much a good candidate for Iris Performer 2.0. I will be happy to add you to the beta program. So I guess he had written to me saying can I be part of the beta program. Please understand that we

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are in the alpha stage now and are still adding some API and function to the product so that our lapses in the documentation that might be a problem for you. However, integrated asynchronous database loading is in place and runs well. Do you want a digital audiotape, DAT tape or quarter inch cartridge tape? Oh yeah, I remember those days. Pre CD, could imaging if it had been a few years earlier I would have said do you want a punch card. Okay. I'm here.

- Q. So having read that, do you have any recollection of communications with Art+Com about Iris Performer 2.0?
- A. No. Sounds like he wrote to me said can I be on the beta list and I said yes, you can.
 - Q. Okay.
- A. I mean that's -- basically my plan would with people was to say yes, right? So I'm not trying to get people to the beta, so I said to everybody that seemed like they were responsible. So I wasn't like a difficult -- I wasn't hard to date, so to speak, just looking for people who looked like they were self

1 These guys usually have big words, starters. 2 sound like they know what they're doing, so sure, they can try if they want to. 3 4 The e-mail at the top starts with 5 my name is Patrick Ling. Do you see that? 6 Yep, I see it right there. 7 And the second paragraph begins we 0. 8 are interested in demonstrating your software in 9 our briefing center and he says we have several 10 Onyx's and run Iris Performer on all platforms. 11 Do you see that? 12 I see it right there. 13 Do you understand that SGI did 14 demonstrate the T vision software at some point 15 in its briefing center? I don't understand that. 16 17 understand that it was in the briefing center, 18 but I don't know that it was SGI demonstrating 19 it. I had the impression that it was SGI kind 20 of loading space to the Art+Com people. I don't 21 know. 22 Q. And you said that Patrick Ling was 23 in charge of the briefing center? 24 Uh-huh. So he would be the one

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that would know. I don't know. I mean and in this other e-mail you showed me there are instructions about how to run the program so one might imagine that that was being sent to someone who would be running it on their own without the Art+Com people present, but that's outside of my knowledge.

Q. How are you familiar with Pavel?

We met somewhere and I don't remember. I'm sorry to say I don't know if it was at the briefing center or if it was at SIGGRAPH, because usually I'm at SIGGRAPH every year since 1980. Or where. But we met. And I liked him a lot. I mean, I liked him personally and I'm a pretty good judge I think of engineer talent. He's a talented nice guy. So certainly after I discovered that ball, I love that ball. That ball is awesome. And he was showing with that. And he invited me to Germany. don't remember. I mean, the Germany trip, I don't know when it was. I don't know if it was an SGI days thing or a Google days thing, but at some time I went to Berlin and I met with Pavel and I think I met the Axel person and might have

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1
       been SGI -- might have been at Google, but I
 2
       went there anyway. They were nice hosts. They
 3
       showed me stuff that they were building and
 4
       built. It was fantastic, things for a brewery
 5
       in Scotland and things for the World's Fair that
 6
       was coming up, and things for Japan. It was
 7
       just -- it was like -- it was like the
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       headquarters of a theme park ride manufacturer.
9
       It was just fantastic.
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                    So when Google first contacted
11
       Keyhole, how did that occur?
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                 Α.
                     I believe it was -- I think it was
13
       at lunch.
14
                     Who went on the trip?
                 Q.
15
                     John and Brian.
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                     And did they demonstrate just the
17
       Earth Viewer software?
18
                 Α.
                     Yes.
19
                     How many people were at Keyhole at
20
       that point?
                     29.
21
                 Α.
22
                     And did all 29 go across to
                 Q.
23
       Google?
24
                 Α.
                     Yep.
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1 When Google was in the process of 2 acquiring Keyhole, the Earth Viewer product at 3 that time, did it have a continuous view when 4 you changed your viewpoint in the software? 5 What do you mean by continuous view? 6 7 Well, if you had one, if you were Ο. 8 looking at one view of the earth --9 A. Uh-huh. 10 Q. And you asked to go somewhere 11 else, did it pop over to that new spot or did it 12 move through locations on the earth in between 13 where you are and where you want to go? 14 It certainly presented a smooth 15 and continuous moving view as though you were 16 flying around the earth. 17 Did you consider that to be an 18 important part of your product? 19 We designed around that. 20 What assets did Keyhole have other 21 than the Earth Viewer software at the time of 22 the acquisition? 23 The big assets of Keyhole was its 24 people. These are the people that had made

1 magic, so that's the first thing. And the 2 assets of the Beatles were like the people, not 3 their drums, it was like the people. So then we 4 had contracts with the government, we had 5 agreements that last a long time, 20-year 6 support agreement with NGA, a lot of things. 7 had the servers, which they're near irrelevant, 8 it's Google, but we had some servers and things. 9 We had the software as a code base. We had 10 intellectual property around the patents, around 11 how it worked and what was going on with that. 12 That's valuable, to someone who wants to continue in that line of business. We had good 13 14 will, which was significant. Well, because we 15 had many users who loved our product, so there's -- there's a lot of value in that. 16 17 For the record I'll note the Q. 18 exhibit number 12 has document numbers Google 19 AC-34550 through 574? 20 Α. Okay. I see it. Was this presentation or 21 22 presentation similar to this one used when you 23 and Mr. Hanky went to seek second round funding? 24 Α. Yes.

1 Do you know what was meant in this 2 presentation by proprietary technology? 3 I don't know what was meant, Α. 4 because I don't know what -- I mean, I didn't 5 write the text. I did the pictures. But it 6 presumably and naturally means the Keyhole, the 7 product, which is a fluid earth viewing 8 technology. 9 And did Keyhole consider that Q. 10 product to be proprietary? 11 Α. It still does. 12 Okay. And it did at the time? 13 Yeah. It's been 10 years and no 14 one is close. 15 So when we talked about being a 16 proprietary technology, do you believe that --17 are there any of these sub bullet points for 18 which it is still the proprietary technology? 19 What's proprietary is how it does 20 what it does. The bullets don't describe how it 21 does what it does. So you know, it's not --22 it's not -- this isn't an engineering chart, 23 this is a sales chart, right? 24 Q. Yes.

1 But it's not -- proprietary 2 doesn't have unprecedented power. It's good to 3 have that, but it's not necessarily proprietary. 4 What's proprietary is this notion of flying, is 5 the way the client flies around the earth and provides this smooth, fluid -- the way it 6 7 implements this smooth fluid motion around 8 unconstrained large data sets. There's real 9 invention behind that. 10 Q. For the record, I'll identify that 11 exhibit number 16 has document numbers ACI-11494 12 through 541. And I'll identify that that 1.3 interview starts on page 515. And there might 14 be a picture of someone familiar. 15 Yep, there's me. Just as bald. 16 Great. 17 So couple things in here. Do you Q. 18 remember doing this interview? 19 It may come to me as I look at the 20 words in it. I mean, I've done so many, I mean, like it's crazy. I speak to 100,000 people a 21 22 year, travel 3,000 miles a year. It's like all 23 kind of -- like all the same, you know, after a 24 while.

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Q. Do you think the change of Keyhole for \$40 to Google Earth for free caused the whole world to notice Google Earth?

I think being at Google and Google announcing it caused the whole world to notice Google Earth. The fact that it was free certainly removed all barriers to entry, so to speak, but I think it was the Google imprimatur that actually made the world notice. I mean, I think -- I think the world would have paid \$40 for it too. Maybe not as many people, but it could have done that. But it was the Google name that made it, I think made it -- made the world notice. I think it was our technology that made the world keep using. But I -- I think -- I think the notice came from like being, you know, a company everybody knows about is doing some cool new thing, you should check it out. I think that's -- that's the biggest thing, yeah.

Q. So it starts, so to say that

Google launched Google Earth to not make any
money really doesn't make any sense. Google is
a real business that makes profit.

1 Uh-huh. Α. 2 Q. Do you see that? 3 I don't see -- hang on a second. Α. 4 So I'm starting at the bottom of 5 the first column. 6 Oh, yeah. I see it. I see it. 7 Okay. And do you agree that that Q. 8 was the case in May of 2006? 9 I -- I agree that's probably what 10 I was saying in 2006. I think -- I mean, I 11 think it's a complex thing. 12 I'm going to hop back a little bit 13 because I think I did miss one piece, which is 14 texture paging. 15 Uh-huh. Was that a feature of the 16 17 Performer library? 18 It was a feature of the library 19 later, like I don't know what version it was, 20 but like I said, what about 1.2 versus 2.0. I 21 don't know that was the 2.0. But before I left, 22 before SGI imploded, we had texture paging in 23 Performer as part of the ClipMap software 24 support. I had this hardware patent called

1 ClipMapping. And it was supporting Performer 2 for ClipMapping, because this is pretty complex. 3 And that -- that software had a texture paging 4 feature. That was a crucial part of that. 5 And so that was incorporated into 6 SGI's Performer library to support ClipMap? 7 Α. ClipMapping, yeah. 8 MR. PARTRIDGE: Your honor, we 9 have a few exhibits to offer in connection with 10 that deposition. They are PTX-77, 79, 84 and 11 354. 12 THE COURT: Any objection? 13 MR. SNYDER: No objections, Your 14 Honor. 15 THE COURT: Okay. Those exhibits 16 will be admitted into evidence. 17 MR. PARTRIDGE: Thank you, Your 18 Honor. And given the lateness of the hour, I 19 would suggest that we were going to call a live 20 witness, but the next deposition in line is 21 exactly 11 minutes, which is exactly what we 22 have left, so I would like to go to Julien 23 Mercay and play his deposition. There are no 24 outstanding objections to that, Your Honor, or

1 to that deposition. 2 THE COURT: Okay. Please do that. 3 MR. PARTRIDGE: So Mr. Mercay 4 works as a software engineering manager for 5 Google Earth testifying about the operation of 6 Google Earth and he was a corporate 7 representative for Google in that regard. 8 (Video playing.) 9 Would you please state your name Q. 10 for the record? 11 I am Julien Mercay. 12 Okay. Mr. Mercay, you currently 13 work for Google? 14 Α. Yes. 15 Okay. And which facility do you Ο. 16 work at? 17 In Mountain View. Α. 18 And what's your title or position? 19 I'm a software engineering 20 manager. 21 Are you familiar with the update 22 function in the Google Earth Version 7.1 source 23 code, particularly VisualContext::Update? 24 A. VisualContext Update, yes, I'm --

1 at a high level, I'm familiar with it. 2 haven't looked closely at that code for several 3 years. 4 Q. What is your high-level 5 understanding of what that code does? 6 To the best of my recollection, 7 and again, I haven't worked on the code for 8 several years closely, is Update is the process 9 of determining what kind of data we need for a 10 given view and the process of processing that 11 data. 12 Q. Are you familiar with the term 13 cull, C-U-L-L? 14 A. Yes. 15 Do you have an understanding of 16 what that terms means? 17 A. Yes. 18 What is that understanding? 19 It's part of the process of 20 walking or traversing through the data 21 structure. Culling is the word we use to decide 22 what is important and what is not. 23 And do you have an understanding 24 of whether Google Earth 7.1 client software

1 performs a cull? 2 To the extent of the definition, 3 yes. 4 Q. Okay. And do you understand how 5 that is done in Google Earth 7.1? 6 At a high level, yes. 7 And could you explain that how 0. 8 that is done? 9 So, again, we walk the data 10 structure and for each piece of data in that 11 data structure we can look at that data and 12 decide if it's important enough for that view. 13 And do you know what criteria are 14 used by Google Earth Client 7.1 software to 15 determine what is important in that process? 16 I know some of the criteria, yes. 17 And what are those that you know? 18 Some of them are based on what 19 each piece of data -- the location of each piece 20 of data, the location in the virtual world, and 21 we use that location to determine if the camera 22 can see that particular piece of data or not. 23 And if so, the camera can see it, we would keep 24 that piece of data, and if not we would discard

1 it. 2 Q. Do you know whether a frustum is 3 used in Google Earth Client 7.1 software as a 4 part of this culling process? 5 Q. And what is your high-level understanding of LOD cull? 6 7 Should we describe LOD? 8 Q. Sure. 9 Or can you describe LOD? My -- my Α. understanding of LOD means level of detail. And 10 11 it's the process of determining the right kind 12 of data to display for a given view. 13 And when you say, "the right kind 14 of data," what are you referring to there? 15 The right resolution of data. And by "resolution," do you mean 16 17 image resolution? 18 A. Yes. 19 And is an LOD cull performed in 20 Google Earth Client Version 7.1? 21 Yes, to the extent that I know 22 about LOD cull. 23 And I should preface that, I don't use that term directly, but I understand what 24

1 you mean by it. 2 Q. Okay. 3 Yeah. Α. Q. With that same understanding, is 4 5 an LOD cull performed in Google Earth Version 6 8 -- or major Version 8? 7 A. Yes. And the LOD cull that we were 8 9 discussing in Google Earth Client major Version 10 8, is that done on a hierarchical data 11 structure? 12 A. Yes. 13 And same question with respect to 14 7.1, is LOD cull done on a hierarchical data 15 structure? 16 A. Yes. 17 Do you know what type of 18 hierarchical data structures are used in Google 19 Earth version -- or major Version 8? We use several structures like 20 21 that. 22 Okay. Can you list those Q. 23 structures? 24 A. For which version?

1 For major Version 8? Q. 2 Version 8. Yeah, we use something 3 we called radial octree, and we use sort of a Quadtree, quadrant tree, for different type of 4 5 data. 6 Q. Okay. And to your knowledge, in 7 major Version 8, both of those data structures 8 are used? 9 Yes. Α. 10 For 7.1, are there also several hierarchical data structures used? 11 12 Α. Yes. 13 Ο. And what are those? 14 The same. Α. 15 Do you have an understanding of 16 VisualContext Update as it is in the source code 17 of Version 7.1 of the Google Earth Client? 18 Α. At a high level, yes. 19 And what is that understanding? 20 I believe that's the question I 21 answered a few minutes ago. 22 So the process is walking through 23 the data structure to determine what data is

important for the current view.

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1 Okay. And once that happens, 2 what's next? 3 So once we determine which data is Α. important for a current view, we need to 4 5 retrieve those pieces of data. Q. And when you say "we need to 6 7 retrieve," you're referring to the Google Earth 8 Client Version 7.1 needing to retrieve; is that 9 correct? 10 A. Correct. 11 Do you have an understanding of 12 how that retrieving is done in Google Earth 13 Client Version 7.1? 14 At a high level, yes. 15 And what is that understanding? 16 So we are going to -- so again, we 17 means the product and the code is going to 18 construct a set of network requests and issues 19 those requests to Google and wait for the 20 answer. 21 Q. And once an answer is received, 22 what happens then? 23 The code then decodes those pieces 24 of data and processes them and issues a command

1 to the computer to draw -- to draw that data on 2 the screen. 3 Q. Okay. Well, is the data that is received after the network requests that you 4 5 mentioned earlier are sent, is that data stored 6 at all locally? 7 Α. Yes. So do you recall what Mr. Tilman 8 9 -- or sorry, what Mr. Tilman Reinhardt told you 10 when you asked for clarification? 11 Α. I asked him three specific 12 questions. 13 And what were those questions, if 14 you don't mind me asking? 15 I asked him about the location of 16 Google data center within the US. 17 Q. Mm-hmm. 18 A. I asked him about the storage --19 the storage available for the -- the storage 20 that is used for Google Earth products. 21 Ο. Okay. 22 And asked him about the bandwidth 23 requirements for those products. 24 Q. Great.

1 And can you provide me with what 2 he told you or with Google's testimony with 3 respect to those questions, whatever you would 4 like? 5 Yeah, so regarding for the first 6 question, he confirmed that Google has -- I'm 7 not remembering the exact number, but it's between four and six data center in the United 8 9 States. 10 Q. And is the culling in Google Earth 11 8 performed on at least one hierarchical 12 structure, to your knowledge? 13 A. Yes, there is a hierarchical data 14 structure. 15 Do you know what type of hierarchical data structure that would be? 16 17 It depends on the type of view, Α. 18 but... 19 For a 3D view? Q. 20 For a 3D view it's using a radial

- 21 octree.
- 22 Is there any use of a Quadtree or Q. 23 a quadrant tree?

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A. For a different kind of dataset,

1 yes. 2 The rendering in Google Earth 8, Q. 3 is that done using triangles and vertices? 4 It's like any computer graphics in 5 the modern age. Yes, we use triangle and meshes and vertices, yes. It sounds likely based on 6 7 the context. 8 Sure. The whole phrase, "the Q. 9 appropriate level of detail." Do you have an 10 understanding? 11 I can gather what "appropriate level of detail" means in this context. 12 13 Q. And what is that meaning that you 14 gather? 15 It means displaying or rendering 16 the imaginary and data at the resolution that is 17 neither too course or too fine. 18 (End of videotape deposition.) 19 MR. PARTRIDGE: Your Honor, there 20 are no exhibits to offer in connection with this 21 particular deposition. We assume that by the 22 clock we are finished for the day and we are 23 there, unless Your Honor has a differing view 24 about that.

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                     THE COURT: No, I think the jury
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       -- thank you members of the jury now. You're
 3
       going to be leaving the courthouse this evening
 4
       and I just remind you how important it is not to
 5
       discuss this case among yourselves or with
 6
       anyone else. And how important it is not to do
 7
       independent research on the facts of this case.
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                     And we'll see you tomorrow morning
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       again at 8:45, and we'll resume the trial at
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       that time. And thank you again for your
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       service.
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                     (Jury leaving the courtroom at
13
       5:03 p.m.)
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                     THE COURT: Okay. Be seated,
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       please.
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                     So what things do you both have
17
       now?
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                     MR. PARTRIDGE: I have two issues
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       I wanted to alert the Court to if I may.
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                     THE COURT: Go ahead.
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                     MR. PARTRIDGE: The first concerns
22
       the bench trial on Friday afternoon for which we
23
       are each allotted 90 minutes of time. We did
24
       get disclosures of Google on Friday evening, I
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1 think that's when it was, Friday or Saturday, 2 whatever it was, and we're obligated to respond 3 this evening, which we will do. 4 But I felt that in reviewing their 5 disclosures that we weren't -- they weren't 6 providing disclosures consistent with a 7 90-minute trial allocation. We have nine witnesses to be called, nine by deposition, and 8 9 the deposition designations are more than the 90 10 minutes by quite a lot. The exhibit list is 11 probably in the ballpark for an exhibit list for a shorter trial, although it's pretty long as 12 13 well. We will respond, but it's our view that 14 we ought to have a much more precise 15 identification of the evidence that's going to 16 be offered at the bench trial on Friday than we 17 do right now. 18 THE COURT: Mr. Snyder. 19 MR. SNYDER: Your Honor, we 20 addressed precisely the situation at the 21 pretrial conference. Your Honor instructed that 22 we provide exhibits and witness lists consistent 23 with the general disclosure obligations which we 24 understood were consistent with the pretrial

1 orders specific to the bench trial. 2 I specifically raised the issue 3 that we should not be required to disclose with the specificity plaintiff first requested 4 5 because they were asking us to disclose a week 6 in advance when the pretrial order requires them 7 only to disclose the night before the jury 8 trial, or at least two tonights before. 9 I provided a good faith disclosure 10 of what we anticipate will be used in the bench 11 That will, of course, depend on what trial. 12 occurs before the jury because we have no 13 intention of repeating anything. And we will 14 comply with the more detailed disclosure 15 requirements that are in the pretrial order for 16 the specifics of what will be provided on 17 Friday. 18 THE COURT: And we set that as 19 Friday? 20 MR. SNYDER: That's correct, Your 21 Honor, Friday after closing arguments after the 22 jury is deliberating. 23 THE COURT: Did we set a date for 24 more specific disclosure?

1 MR. SNYDER: The pretrial order 2 has a schedule for disclosures depending on 3 whether they are deposition designations or 4 witnesses and exhibits. So it varies. 5 Deposition designations have to be disclosed two 6 days before they might be played, and witnesses, 7 the specific order and selection of the 8 witnesses and their accompanying exhibits have 9 to be disclosed the night before which is 10 exactly the schedule that we followed for today. 11 THE COURT: Well, Mr. Partridge? 12 MR. PARTRIDGE: Your Honor, I 13 guess I would say that it certainly wasn't clear 14 to me from the pretrial order that that 15 procedure was also going to be in place for a 16 bench trial. 17 That is an improvement over where 18 we are right now. And if we apply that 19 procedure to the bench trial that definitely 20 helps, so that means we'll be getting further 21 disclosures from you Wednesday night and again 22 on Thursday night if I am correct? 23 MR. SNYDER: That's correct, Your 24 Honor, that's when Mr. Partridge raised this

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       issue.
                     THE COURT: That sounds --
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                     MR. PARTRIDGE: That helps. That
       will suffice, Your Honor.
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                     THE COURT: Very good. What else
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       do we have?
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                     MR. PARTRIDGE: The other issue,
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       Your Honor, concerns where we are with respect
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       to the infringement issue. And the other day
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       when we were I guess at our, the last hearing we
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       had before we started the trial, I can't
       remember the day, Your Honor asked the question
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       to Google as to what remains with respect to
14
       infringement given Your Honor's additional claim
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       construction rulings and you had suggested is it
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       E and F, and they said no, it's everything which
17
       doesn't seem --
                     THE COURT: Are we talking about
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       order here now?
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                     MR. PARTRIDGE: We're talking
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       about narrowing the scope.
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                     THE COURT: As to which
23
       limitations aren't met?
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                     MR. PARTRIDGE: Exactly, Your
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1 Honor. So we're still at everything is in play 2 despite everything that has occurred. While 3 Your Honor can't order them to limit the number 4 of issues they decide to raise at trial, if in 5 fact we're going to have to go forward and 6 present testimony on every single element of the 7 claim, then what I would ask is that we consider 8 whether or not Google should lose some time out 9 of their trial time to account for the fact that 10 they're refusing to narrow the scope of the 11 issues that have to be tried at this point. 12 THE COURT: Well, I'm not going to 13 limit their trial time, but it does seem to me 14 that it might be possible to stipulate as to the 15 fact that some of these limitations are 16 satisfied by what Google does. 17 MR. SNYDER: Your Honor, ACI is 18 the plaintiff and they have the burden of proof. 19 It's not Google's obligation to start conceding 20

MR. SNYDER: Your Honor, ACI is the plaintiff and they have the burden of proof. It's not Google's obligation to start conceding elements. I understand if we're trying to be efficient in that way, you want to us to identify elements that we weren't going to contest, the same should be true for your prior art, they should identify for us which elements

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       of the claim, the asserted claims they don't
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       contest are found in the prior art, that way we
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       don't have to waste the jury's time going
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       through each of those. The proof issue is
 5
       identical.
                     THE COURT: Well, is there room
 6
7
       here for a stipulation?
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                     MR. PARTRIDGE: Well, given that,
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       Your Honor, perhaps Mr. Snyder and I and our
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       teams, who usually ends up being us a little
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       later in the process, should have a discussion
12
       about this and see if we can narrow the scope of
13
       the issues that we have to present to the jury.
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                     THE COURT: I think that will
15
       help.
16
                     MR. SNYDER: We would be happy to
17
       do that, Your Honor.
18
                     MR. PARTRIDGE: And these are the
19
       two issues I had for you this evening, Your
20
       Honor.
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                     MR. SNYDER: And then we had
22
       raised two issues this morning, Your Honor,
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       which we deferred to this afternoon. The first
24
       of which is the hypothetical negotiation date.
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1 And I believe given ACI's opening statement, 2 which is consistent with the allegations in 3 their complaint that there can't really be any 4 dispute anymore, the 2005 is the correct 5 hypothetical negotiation date. THE COURT: Well, I said earlier 6 7 I'm tentatively going to adopt that date. 8 don't see that the patent itself is materially 9 different. And I haven't heard anything yet to 10 suggest that the version of Google Earth that 11 was available in 2005 is materially different from what is being accused of infringement here. 12 13 And if there is such testimony, then we can 14 revisit it, but for the moment we're talking 15 2005 as being the hypothetical negotiation date. 16 MR. SNYDER: Thank you Your Honor. 17 MR. HAWES: Your Honor, one point 18 on that. THE COURT: Yes. 19 20 MR. HAWES: Because we only 21 accused the versions that started in 2008, we 22 don't have discovery of the version that was 23 previous to 2008. We have no way of showing how 24 it's different or the same because we never

1 sought discovery because we never accused it. 2 THE COURT: Well, I think that's 3 your problem. If there isn't any evidence here, 4 I think we're going to go with 2005 because 5 that's when Google Earth was introduced. 6 think that it's up to you to show that there is 7 some other date that's appropriate because of 8 the change in Google Earth and that you seem to 9 be telling me that you can't do that. 10 MR. HAWES: If I had accused the 11 earlier version, then you would have said 2005 12 because you accused it, but that was the only 13 way I could get discovery to show this 14 difference you're asking us to prove. 15 THE COURT: The burden of proof 16 here with respect to the damages is on you. And 17 from what I see, 2005 is the right date. And if 18 you didn't take discovery that would show some 19 other date, that's too bad. 20 MR. HAWES: Thank you, Your Honor. 21 MR. SNYDER: The last issue, Your 22 Honor, relates to the order, the required order 23 for the steps in claim 1. And I don't know yet 24 to what extent a resolution of that issue is

1 essential. It did not come up today, 2 fortunately, but I anticipate that 3 Dr. Castleman, ACI's expert, is going to testify 4 tomorrow. If his opinion is going to depend on 5 flexibility in the order of those steps, then it 6 is an issue that would be ripe. 7 THE COURT: What is the dispute 8 here, is it whether G has to come after F, or is 9 there more to it than that? 10 MR. WILLIAMSON: Your Honor, based 11 upon the competing instructions it's much broader than that. Google has proposed a jury 12 13 instruction and it's instruction eight in the 14 proposed final instruction set that simply says 15 that --16 THE COURT: That's the new 17 version. 18 MR. WILLIAMSON: I believe it was 19 submitted this morning, Your Honor. 20 And Google has proposed an 21 instruction that says as to the steps of claim 1 22 that the steps of the method must be performed 23 in the order they are here. 24 THE COURT: That may be what they

1 propose, but my question what's the real dispute 2 here? Does it relate to the order of steps F 3 and G or is there more to it than that. 4 MR. WILLIAMSON: As I mentioned 5 this morning, F and G cannot be divorced from B, 6 C D and E. So it's actually B before C before D 7 before E and then E before each of the substeps 8 of F and then G. Those do have to be performed 9 in order and we briefed the issue if the Court 10 would like to see it, but we have -- it's a very 11 short written brief if the Court will entertain 12 that. 13 MR. SPEARS: I don't think the 14 Court should entertain any further claim 15 construction at this point. It's literally been 16 whack-a-mole with Google. We have gone through rounds of claim construction --17 18 THE COURT: No, I think there is 19 an issue here as to the order of the steps and 20 I'm trying to figure out, Judge Andrews I guess 21 it was in claim construction order said the 22 steps had to be performed in order. The cases 23 say that steps don't have to be performed in 24 order unless they explicitly, the patent

```
1
       explicitly requires they be in order or
 2
       implicitly requires that they be in order.
                                                     So
 3
       it seems to me that Judge Andrews may not have
 4
       been addressing that question across the board
 5
       and I'm going to consider what to do about it.
 6
       And it seems to me it is a bit complicated.
 7
                     I suggest that we have three pages
8
       from each side simultaneously submitted by 8
 9
       o'clock tomorrow morning to address that and let
10
       me consider it.
11
                     MR. SPEARS: Okay. We can do
12
       that.
13
                     MR. WILLIAMSON: That's fine with
14
       Google, Your Honor. Thank you.
15
                     THE COURT: Is there anything
16
       else?
17
                     MR. SNYDER: Nothing further from
       defendants Your Honor.
18
19
                     MR. PARTRIDGE: Nothing from
20
       plaintiff, Your Honor.
21
                     THE COURT: I had one question.
22
       There have been some mentions of Deutsche
23
       Telecom today. I take it that Deutsche Telecom
24
       is not an owner of ACI, is not an interest in
```

```
ACI?
1
2
                      MR. PARTRIDGE: That's correct,
3
       they're separate entities. ACI does a lot of
4
       work for Deutsche Telecom.
5
                      THE COURT: There is no ownership
6
        interest?
7
                      MR. PARTRIDGE: No.
8
                      THE COURT: All right. Thank you.
9
       We'll recess and we'll resume at 8:30 tomorrow
10
       morning. Thank you.
                      (Court adjourned at 5:15 p.m.)
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1
      State of Delaware )
 2
     New Castle County )
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 4
 5
                   CERTIFICATE OF REPORTER
 6
7
               I, Dale C. Hawkins, Registered Merit
      Reporter, Certified Shorthand Reporter, and Notary
8
9
      Public, do hereby certify that the foregoing record,
10
      Pages 75 to 407 inclusive, is a true and accurate
11
      transcript of my stenographic notes taken on May 23,
12
      2016, in the above-captioned matter.
13
14
               IN WITNESS WHEREOF, I have hereunto set my
15
      hand and seal this 23rd day of May 2016, at
      Wilmington.
16
17
18
19
                       /s/ Dale C. Hawkins
20
                       Dale C. Hawkins, RMR
21
22
23
24
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